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Science Fiction & Fantasy STORIES

August
1971

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THE JOKE by David R. Bunch

EXTRA ECCLESIAM NULLA SALUS by Eugene Stover

SENTENCE IN BINARY CODE

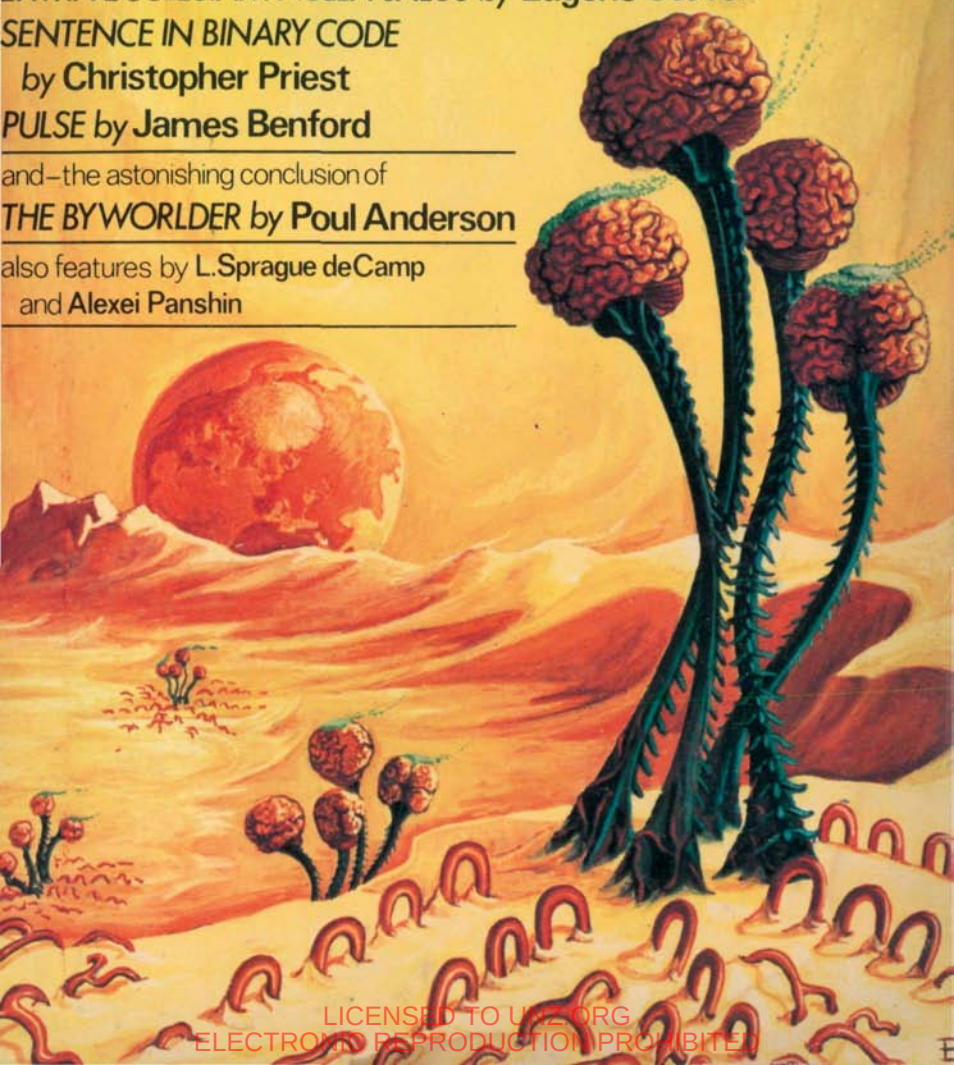
by Christopher Priest

PULSE by James Benford

and—the astonishing conclusion of

THE BYWORLDER by Poul Anderson

also features by L. Sprague deCamp
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Science Fiction & Fantasy STORIES

AUGUST, 1971

Vol.20, No.6

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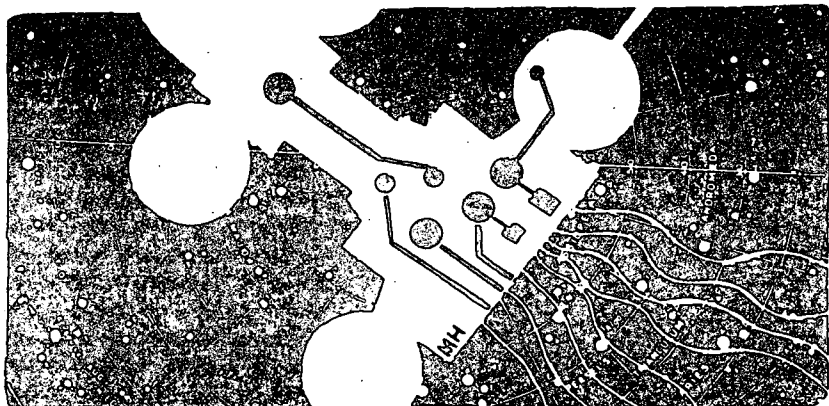
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TED WHITE EDITORIAL

This issue is our first with a new typesetter and a new printer—and we're holding our breath. But all the signs, auguries and portents point to a better-looking magazine—something you've been asking for over the past year or two. Actually, the July issue of *AMAZING STORIES* is our first venture with our new production team, and the foretastes of it have been gratifying.

Periodically, letters come in with complaints about this aspect or that—rarely about the quality of the *material* we publish, but usually about some aspect of its appearance. One recent letter was from a new reader who admitted not having read *any* of the fiction; he informed me that he'd "choked" on one of the letters in the letter column which praised the contents of a previous issue, and that he'd "majored in Magazine and Book Writing and Production." He seemed to feel that under the circumstances, no one had any business whatsoever writing us letters filled with "a myriad of glowing plaudits."

What specifically bugged him were the continuations—the way in which the tails of stories were often continued to the

back of the magazine. The quality of the paper also annoyed him, and he didn't like the size of the print. I thought it a shame he hadn't tried out the *stories*, but there you are—you can't please everyone, and especially not those who have majored in Magazine and Book Writing and Production.

This, you see, is something we have to put up with, and often the causes are beyond our control. They are certainly beyond *my* control; I am, after all, the editor, and not the publisher nor the production staff. But the fact of these complaints has underlined my growing awareness that for a great many of you I *am* the personification of this magazine, and therefore the person to complain to.

So I'd like to try to explain to you some of the mechanics involved in producing the magazine—with the hope that your increased understanding of the realities of the situation will ease the burden of unnecessary complaints.

To begin with, let me spell out my duties and responsibilities.

I select the fiction.

This seems obvious and simple, but it

is not always that simple. I don't, for instance, select the classic reprint—and, to be brutally honest with you, I don't pay attention to it. It remains in the magazine for several reasons, most of them not within my power to alter. One of them is that it provides a margin of elasticity: that is, when the rest of the issue is set in type and the pages are in proof-form, the remaining space is taken up by the reprint, which is selected in part for the number of pages it occupies. This means that the rest of the issue need be neither cut nor inflated in order to fit the set number of pages which comprises the total package. I tolerate the reprint and find what good in it I can.

There were also a number of stories in the inventory when I assumed the editorship of this magazine, purchased by the three recently previous editors. Some were quite good and some were not. I've used those I liked with much pleasure—and dawdled as long as I could over the publication of those I did not. But inasmuch as they were all bought and paid for, it is my obligation to use them all eventually. No, I won't tell you which they were (or are); some of you have liked them much better than I in any case.

Nonetheless, I do select the fiction. I buy it, and I pick the actual stories which go into a given issue. My criteria for the latter are length and content: I try to balance out a variety of different stories while not exceeding the general word-limit imposed upon each issue.

Having selected the stories which will go into a given issue, I write the blurbs and copyedit the stories. Copyediting is a separate job in itself—and many non-sf publications with larger staffs hire separate copyeditors to do it. My experience with the copyeditors of certain book publishers has been unpleasant, because, apparently, many copyeditors look upon their work as an opportunity to teach the

luckless writer how to write. One requires a certain basic conceit to do this, I should think; a sort of "I majored in Literature, you dumb slob, but you're just a writer" approach. The basic task is simple. One corrects misspellings, edits bad grammar, etc., and prepares the copy for the typesetter by marking it up with an arcane bunch of symbols—many of which are alien to most typesetters, I've found. The conceited copyeditor does not stop here, but goes on to "correct" the author's phraseology, his choice of words, his punctuation, and—on occasion—even the point he is making. Any number of authors have objected to this practice. I have myself. One publisher did me the courtesy of letting me see the manuscript for a book of mine after it had been copyedited. I was astonished at the liberties the copyeditor had taken—many of his "corrections" badly distorted the meaning of what I had written. Fortunately, I had the opportunity to "de-copyedit" that manuscript before the printer saw it—and a good thing, too.

In the magazine field copyediting has been used to justify a number of sins. Among them are the elimination of "widow" lines—single-line carry-overs to another column or page; the addition or subtraction of lines or paragraphs to make a story "come out even" with the end of a page; and the addition of "one-line-breaks," often with large-sized initial letters, to break up the monotony of a page of type, even when they interfere with the author's pacing. These are sins I, for one, do not commit.

Occasionally a story will demand more copyediting. Sometimes, for one reason or another, an editor buys a story which he likes, but which is sloppily written in spots. It may be that he knows the author is not capable of cleaning these spots up. Usually he does it with the author's permission. Ideally, any story which requires

(Continued on page 127)

In which the Mightiest Brain among the Advanced Peoples decides to investigate Death—and conceives—

THE JOKE

DAVID BUNCH

Illustrated by JEFF JONES

IN A WAY it could have been the greatest day in history. It was simply the day that the dead man was due to come back. And this no seance thing, no occult posturing from some medium's self-hypnosis trance. Nor was it from religious prophecy. This was to be *real* and scientific.

The boxes were to be flown in from the four far-distant places. (Three were already here; it remained but for the fourth to come jet-tubing in.) "To the four corners," he had directed. "Send me to the four corners of the earth and leave me parted and dead for ten years. Then reassemble here at the Great Conclave, ten years hence, and see me reassembled! I should have much to tell you when I return. Back from that Dark Country. *Ha!*"

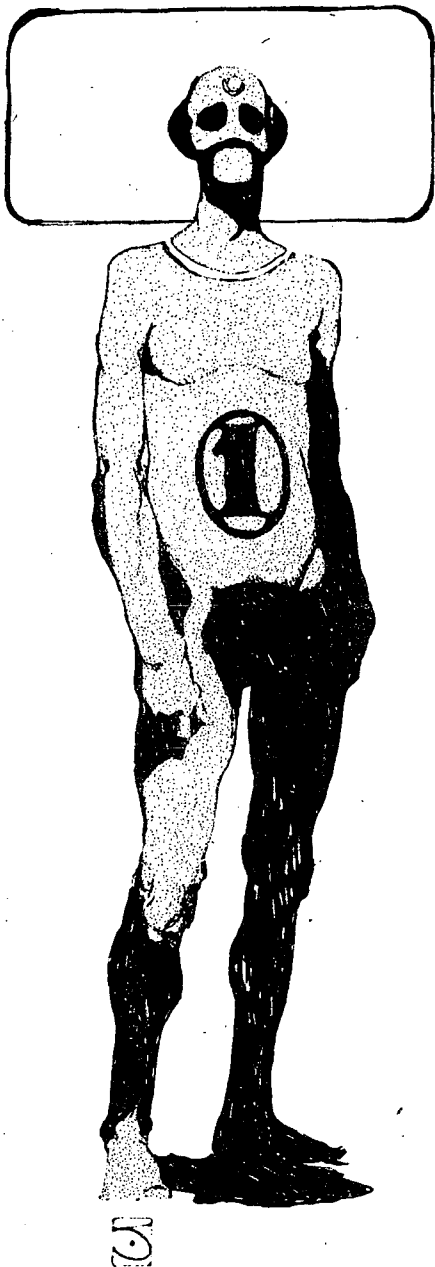
They seized on his suggestion eagerly that day ten years ago. Before he should become afraid and withdraw his magnificent offer, they prepared him for the dismemberment that would fit him for storage in the four bronze boxes. The limbs and outer shell would be easy; they were mostly hinged metal. The few flesh-strips he owned could be safely, if painstakingly, parted from the fusion neuro-flesh that held them to the metal bones. The pale green blood that hammered life to the tube miles of his

flesh-strips would have to be carefully drained and stored in the thick cold bottles that could, if need be, keep pale green blood unchanged for more than a thousand years. The heart, the lungs and all the other organs that remained to this man of metal and flesh-strip (all everlasting organs and precision-made) would likewise be stored in the necessary containers for their keeping. All this would be divided as equally as it could be among three bronze boxes. The fourth bronze box must be reserved for that most special thing, the brain, surely the home, the guardian, the keeper, the supplier—what word is adequate?—of the human essence-of-being.

The human brain by now, in the Advanced Peoples, was a scientific marvel incorporating almost all that had ever been learned about chemistry, mechanics, inathematics and electricity. Except for the original human brain, that I keep thinking must surely have had some Divine origin, nothing else, and I mean *nothing* else, had ever been made that could compare with this brain that, with greater or lesser degrees of refinement, was owned by each and every member of the Advanced Peoples. Now, I don't mean to tell you that each of the Advanced Peoples had a Great Brain. Certainly not! Not every member

of the Advanced Peoples had need of a Great Brain. The Great Brains were earned and awarded (the awards being made in the operating rooms of hospitals) according to certain rigidly prescribed prerequisites. Primarily the awards were earned in "schools" where those who were worthy proved their worthiness for higher things by adjusting to each new operation quickly and using that advancement to prepare for yet a more sophisticated advancement. I will not tell you that everyone had his chance, because he didn't! These things were largely in the hands of families that were in on the ground floor of brain rebuilding years ago, when all this started, and they sent (it was only natural) their sons and daughters now (almost totally manufactured now, starting with the sperm bank for the flesh-strips) up to the brain shops for the operations. It was a status thing, of course.

The lesser members of the Advanced Peoples, being a little out of all this, leaned on their brooms (figuratively) that they used to sweep the floors (not really!) for the elite, and it may have been that they were a little jealous and unhappy. But usually these lesser members seemed quite content as they sat all day in their bubble-dome homes on the plastic and enjoyed day after day the technological results of the discoveries of the Brains. And when a brain advancement proved to be useful, practical and safe, all the lesser members were called up for the necessary operation in due time. So really, in practise, even the lowliest member of the Advanced Peoples was never more than four or five brain operations behind the mightiest Brain in the land. Yet, four or five is quite a bit, in a way. Yes!



And finally there was one Magnificent Brain in the land who was one whole operation ahead of anyone else anywhere. (Ah well, somehow it has always seemed necessary to have gradations. And how else would existence be worth the candle?)

It was the current Mightiest Brain in all Advanced Land who had volunteered to go on this trip to, as he had seemed to hint, investigate death. It was at the Great Conclave of Brains, held each year for the Mightiest One and for all those who were no more than three operations removed from the Mightiest One. And of very special consequence that year were the Four, all from first-line families, powerful, pushy men who had earned and connived their way to a place only one rung from the very top. At the windup of the Great Conclave for that year there was this final meeting, to honor just the Finest Four and the One. The music was strident, the dancers were superb, the perfectly-formed metal maidens removed things of dress in a way that pleased these Finest and the One, and perhaps they syringed into their flesh-strips a little more of the spiked intro-ven than was altogether safe for them to do. Came a point when the Mightiest One had that clear wild look in the tiniest bulbs of his eyes. The metal of his fists rattled down on the great table at which he sat in honor with his Four. "I'll do it!" he said, "I'll do it!" Perhaps he was just too full of the music and the dancers, the stripping and the intro-ven that was spiked. Then too, maybe at a certain point of advancement the Death-Wish, which is always with us, becomes almost intolerably intensified. But I think—almost

know—it was really somewhat less than all these things. I think he had just thought about this a long long time and had planned. And from the way he outlined how it should be done, even producing blueprints and instruction sheets from a baggage space just under his hinged breastplate, there is really no way to think that this was a spur-of-the-moment great offer. Surely it was thought out!

The Finest Four were stunned at first by his unique proposal. Indeed it was not every Conclave that saw a Leader so bemuse himself that he would agree to be cut up and sent away, dead, for ten years. The chances were overwhelming, the side issues something to drool over (mentally, oh sure, in these dry metal mouths) and what if he did really solve the riddle of death? The Four, not quite so drunk as their Leader appeared to be, fell to chuckling and then to laughing in thunder, and while they were pumping his hand and slapping his back in congratulations, each one in apparent jollity found a way to force a little more spiked intro-ven into his Leader's back flesh-strips. While he lay in rigid drunkenness, they removed enough of his parts that he could not change his mind. Then they hurried to make the necessary arrangements and send him away in four separate big boxes. "Our Leader's wish is law," they all said in unison, and then they laughed, "Ha ha!" all together.

Do I need to tell you, human nature being what it is, that they planned to, while he was away, whisk ahead of him in the operations? Do I need even to tell you that each one of them planned to somehow outstrip the other three and someway forge to the fore to be the real top-banana Brain? Can't you just

see how there must have been ten years of chaos in this land?

And now the ten years were up, gone in the small mist of time that ten years would make in a land conceived and dedicated (seriously) as the Land Where People Last Forever. —Three rockets were in and three bronze boxes rested on the dais. The all-important fourth box was still out there somewhere, perhaps far away, perhaps near. Who could know? Maybe it had even ceased to exist, destroyed in some small calamity in a far place. Truly, the Magnificent Four had been far too busy plotting how to best each other in the operations (which even so had ended in stalmate; each had had three) to be keeping tabs on any bronze boxes. Gladly they had sent them away to the four corners, following, let it be said to their credit, to the letter the instructions their Leader had drawn from the space just under his breast-plate before he had blissfully passed out from the spirits in the intro-ven. But after they had sent them away, the Four had forgotten the boxes.

As time dragged along now while awaiting the arrival of the fourth box, the Finest Four became more and more the Fretful Four. They were worried about many things, and certainly not very important among their worries was concern over what their former Leader may or may not have found out about the Country of Death. Former Leader? Certainly! He could not be their Leader now, could he? Not when they were, each of them, two full brain operations ahead of him! How break the news to him, what do with him? Those were just two of the things that worried our Four Conspirators. They drummed their

steel fingers on the steel table where they waited. They had more of the spiked intro-ven than was good for them. They got ideas, dangerous, unfair ideas. Finally came that time when eight tiny bulb eyes glowed in a kind of agreement. They read each the other's thoughts. "*Even if that fourth box does come in,*" they all said at once, "Why put him back together?"

It was as simple as that. They agreed to send home all the technicians that were there assembled to put their once-but-no-more Leader back together. You would have thought—at least I should have thought—that these Four Great Men would have been curious and interested enough about the possibility of finding out where a man really goes after death that they would have allowed their former Leader to be put back together. At least long enough for him to make his statement. After he had given his testimony on death, if he had any to give, they could have overpowered him, couldn't they? And anyway, they were far ahead of him in the operations now, weren't they? So what was to fear? But I guess they were just too intent about this business of living; after they had sent the technicians home and had taken up part of a floor in order to hide the three bronze boxes safely away, they began to eye each other in the old hard manner. And anyone would know that it would be no-holds-barred again in the competition by all to gain the upper hand in the operations on the brains. And also, anyone who had lived through the past ten years could guess that chaos would not diminish but would reign again supreme.

They could hardly remain friendly, or even pretend to be friendly, long

(Continued on page 17)

EXTRA ECCLESIAM NULLA SALUS

EUGENE STOVER

Illustrated by MICHAEL WM. KALUTA

Intellectual fascism takes strange forms, and the one detailed here is very near to us now . . .

AS THE APPLAUSE died, all the white men started moving out of the meeting room in tight little groups alive with jabber and gesture. The black man sat on his folding chair where he had been seated throughout the standing ovation.

He sat there in sulky protest until the room was emptied. Then he followed after. The 61st Annual Convention was over. The President had delivered his uplifting Presidential Address, and now all 2000 members and fellows of the Association for American Anthropology would return to their home universities, buoyed high with a renewed sense of mission. But first a night of circulating parties in the hotel rooms.

By the time Roy Welmath circulated into the President's suite, the party there was going strong. The place was packed with standing, talking, drinking, smoking anthropologists. All the bottles of liquor had been opened, and the ice was getting low. The loudest voices came from a bunch of well wishers jammed around the President, a short, vested man in elevator shoes who sported his old Phi Beta Kappa key on an Albert. In his right hand he carried his constant companion, a chief-

tain's staff from the Bunyoro kingdom of Negro Africa where he had done his first field work.

"You had to do it, old boy."

"Yeah, it really took guts to attack him."

"He got up and walked out halfway through your speech, didja notice?"

"Guilty as hell, the racist bastard."

"Great speech."

"Well, you did it—the Association is behind you, one hundred per cent."

Welmath stood in the doorway a moment before edging his way inward. The premature gray in the tightly wound whorls of his peppercorn hair, together with his large, starting eyes, truthfully advertised an image both thoughtful and alert. He made his way to the beverage table in the back room of the suite and poured himself a scotch and soda.

His thesis advisor, who was also the departmental chairman, materialized out of the smoke and noise.

"Hey, Roy!"

Welmath turned and recognized the pipe, jocular face and elbow patches. He couldn't see the adolescent saddle shoes, but he knew they were there.

"Dr. Ropes."

"Howdja like me to introduce you to Pete? He's an old friend of mine. C'mon."

Dr. Ropes pulled an arm and together they went forward and squeezed into a place in front of the President.

"Listen Pete," called Ropes, "I want you to meet Roy Welmath. He's doing a thesis on psychological anthropology for me. A brilliant guy."

"That's fine," the President said, and shook Roy's hand. "Glad to meet you, Roy. Couldn't work under a finer man. One of the best students I ever had."

"Tell him what you think of the speech," urged Ropes.

Welmath exaggerated his everted lips in his most negritudinous pout. *What the hell does he think I think?*

"I hear he's just cabled his resignation," Welmath said after a moment.

"Whazzat?" asked the President, leaning forward.

"Quit his job. Forced to. Just heard about it down in the lobby."

The President stepped back, a little shocked. But a familiar voice from a supportive colleague braced him up.

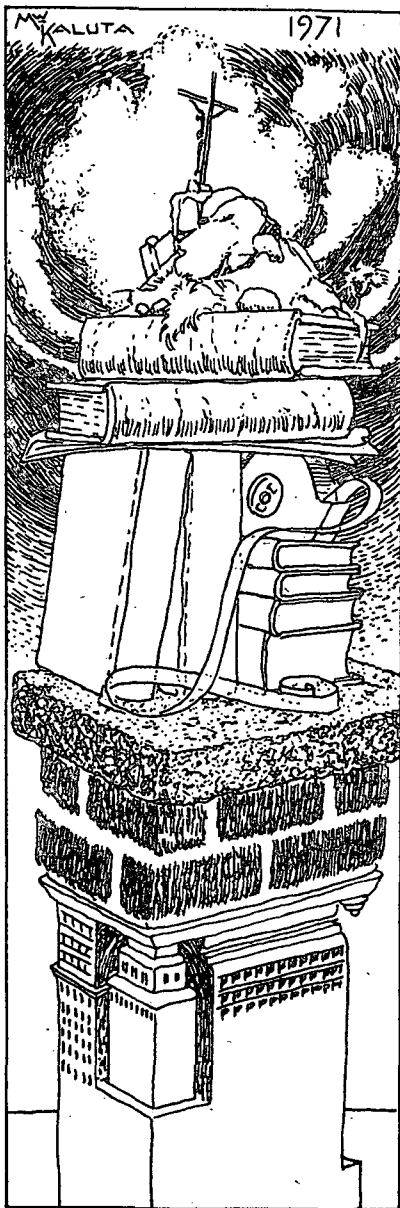
"You had to do it, old boy."

"That's right," said the President, facing Welmath again. "I had to do it—for people like yourself. For the blacks, the poor, the young . . ."

"My father's a rich New Haven insurance executive," put in Welmath.

"Well, two out of three. You get what I mean," insisted the President. Somebody brought him a fresh drink.

"It's people like him, the alienated professional, that we've got to watch out for these days," the President went on. "Here we are, in the midst of the worst racial tensions since Hitler's Germany. And what does he do? He keeps



right on publishing in his field as if the rest of us weren't anguishing over this crisis. All that business about palm prints, ear wax, and the number of cusps on the molar teeth—how the racists will eat it up! 'Aha,' they will say, 'You see, races *do* exist, and if races exist they must be different.' That man has got to be stopped." He hit each word of this last with a bash to the floor with his staff. "But no, on he goes, the eternal specialist, like the jew-killing Eichmann or the bombardier of Hiroshima. Next thing you know, Roy, *you'll*" (bash) "be gassed in the ovens. We anthropologists have a moral" (bash) "responsibility" (bash) "to stop that. The physicists went ahead and let their bombs" (bash) "get loose, but we can stop this race talk" (bash, bash) "if we all just stick together."

It was nice to know that anthropology was right up there with atomic physics in importance—the President's address had given everybody a warm glow of satisfaction on that point. But Welmath wondered about his thesis. Was it acceptable, now that this new line of dogma had been manifested? He slipped away as a fresh batch of well-wishers crowded in. Behind him he heard the reassuring refrain,

"You had to do it old boy. You had to do it."

The day before Welmath returned home, the typist delivered six copies of his dissertation in 3-inch spring binders—one for himself and five for the members of his dissertation committee. Mrs. Welmath was that much closer to being married to a Ph.D.

When she heard him tell of his apprehensions, the sudden bloom of his arrival failed to glow. She consoled

herself with long, slow strokes down the back of her fashion wig.

"I had supper on the turnpike," Welmath said as the silence lengthened.

Mrs. Welmath plumped herself down on the sofa and started a cigarette with a lighter built into the head of a big Siamese cat flecked with gold in the plastic.

"That's what you get for dumping on the IQ test," she said. "Who are you, Mr. Welmath, to dump on the IQ test?" Welmath stood in the middle of the living room floor and looked down at the stack of binders piled up on the coffee table.

"You still don't understand. I used the Guilford method of testing for intelligence. *He's* the one who's attacked the IQ tests. Not me. There is no such thing as one, single, unitary, measurable, hereditary thing as intelligence. There are these many different mental abilities—over a *hundred* different channels of information processing. Add them all up—the brain is a computer—and *that's* intelligence."

"All right, smartie," Melna said, blowing out a sheet of smoke between thin lips compressed against her teeth. "Then why did you have to pick such a controversial subject? My brother—and he got his degree even before you *tried*—said play it safe. Tell Roy to play it safe."

"That's not what is controversial in my case."

"Then what is?"

"Look, Melna," he said, picking up one of the binders. "All I've done is use Guilford's method. They're *his* tests—he's a psychologist. The only thing *I* did," and here he flipped open the computer readouts at her, "was to apply the method to Negroes and

whites and then tabulate the difference."

"With the help of the Black Panthers. *That's* a big help, too."

"How else could I get so much testing done in the Ghetto?" Welmath closed the binder and put it back on the pile. "Anyway, I've definitely shown that blacks tend to use one style of data processing in solving *their* typical problems, and whites another. Intelligence quotients *disguise* this difference—a cultural difference in formation processing—behind one numerical score so as to make life easier for school principals. Do we promote this kid or not? is what they want to know—give me a quick answer already. So blacks test out 15 points below whites. So what? It's a theological question—measuring ghosts and then ranking them dumber or smarter. So everybody keeps asking, Are Negroes inferior? Stupid question."

Melna put out the greasy remains of her filter cigarette in the matching kitten ashtray. "Let's not argue about it, hon. What've we got to do with all those street niggers? We're above that. My background is just as good as yours, if not better."

"If you say so," said Welmath. He smiled and went into the kitchen to get a beer.

"When's your mother coming?" he said leaning out the doorway after a few swigs.

Melna brightened at the question. "She'll arrive about a week before commencement. And stay through to see you get your degree."

"If I get it."

"You are an old crepe hanger!"

Melna jumped up and joined her husband in the kitchen.

"What does that say?" she said,

pointing to a letter tacked on the bulletin board. " 'Truly excellent, original, creative, imaginative and sound.' *That's* what your *advisor* says about your thesis. *He* said those words."

Welmath drained the last of the beer out of the can. "Just awhile ago you were riding me for being some of those words."

Melna made a funny face at him and skipped toward the bedroom. "I'll make you forget those troubles!"

"Did you take your pill?" Welmath called after her.

"I don't stop taking them until I'm Mrs. Dr. Roy L. Welmath," came a voice from the darkness. Then after a minute: "Roy?"

Another pop-top can of beer popped in the kitchen. In that pants-suit of hers, he thought, her ass sticks out like a Hottentot's.

The President of the A.A.A., otherwise known as the King of American Anthropology, was waiting in Rope's office the day of Welmath's thesis defense. King Peter had been invited as the outside examiner in this case.

"I think we should have a little chat before we go in there," Peter nodded toward the room across the hallway. "Take a seat please."

Welmath sat down at one of several work tables, spilling over with papers, that were arranged at random in the spacious office. Behind him ranks of ethnographic monographs reached to the ceiling in room-length shelving. Primate skeletons of various species hung from special stands on the other side of the room to the front of him.

Peter closed the door and remained standing, his African chieftain's staff in hand as always.

"The other committee members will arrive shortly," he said. "As yet they do not know my reaction to this thesis of yours. I can't accept it" (bash). "But it wouldn't look good to vote you down" (bash). "So we'll have to compromise. You agree never to publish the work in any form, and I'll sit on the committee."

He reached into his inner coat pocket and pulled out a sheet of paper.

"Sign this and everything will be all right by me."

What choice was there? The King sat on the editorial board of every journal in the field and could say yes or no to every MS submitted to the major publishing houses. Don't sign, no degree. Sign, and throw away ten years of research.

A knock came at the door.

"Well?"

Welmath signed.

"Good." The King pocketed the document, strode to the door and opened it. It was Dr. Ropes begging entry into his own office.

"Ah, Dave. I've just had out little chat with your candidate. He'll make out, don't you worry."

"It's kind of you to say that, Pete. I guess it's time to begin. Everybody's here, and it is ten o'clock, if not a little after."

Peter, Dave and Welmath crossed the hall into the little seminar room. The other three members of the dissertation committee were already seated at the polished table set in the middle of the room. Dr. Ropes showed Welmath to a seat at one end of the table while Peter sat down at the other end. Ropes then took the seat left to him on the side of the table next to one of his departmental underlings.

Assuming some vestige of chairmanship in the face of kingship, he allowed himself the opening words of the meeting.

"Well, Pete, do you have anything to say before we get started?"

"Yes I do, Dave. Thank you."

Peter leaned back in one corner of his chair, elbow on one of its arms, hand grasping the other.

"It looks like an acceptable thesis to me. I stayed up specially last night to read it. I hope the others agree."

Peter looked around. Everybody nodded assent.

"Good enough," Peter said, leaning forward on knuckles placed on the table top. "I've got a plane to catch at noon so I can be in New York in time for the presentation of this year's Viking Medal award."

He pulled out his watch from his vest pocket for a quick look.

"I'm sure we won't have to keep Mr. Welmath here very long. Dave, this is your show. Got anything to say, any routine questions?"

Dr. Ropes stopped trying to light his pipe and hurried to his task.

"Roy—Mr. Welmath. You've presented us with a very interesting thesis, indeed. But going beyond it, if I may, do you believe your results are hereditarily determined? In your opinion, I mean."

"Dave, I hate to interrupt," said Peter, "but just for the record I'd like to ask Welmath to first tell us just what sort of racial entities he thinks he's dealing with. In other words, do Negroes exist?"

Welmath answered that directly and with economy.

"As I say in my thesis, there are two sides to the story: yes there are races,

and no there aren't. I side against the no-race hypothesis for one simple reason. People *believe* in races, in black and white, and that belief has biological impact. In reality, Negroes are a hybrid population. Any given black man, including myself, contains anywhere from 2 to 50 per cent Caucasoid genes in him. Since melanism is dominant . . ."

"That's why I maintain that races do not exist," said Peter, shaking his fist for emphasis. His staff was leaned against the table. "There is only a continuum from black to white. A *continuum*. But people have mistakenly drawn an artificial sociological line down the middle. On one side everyone is called Negro whatever the percentage of African genes, and on the other side everyone with no recognizable expression of African genes is called white. This line is strictly artificial—*strictly artificial*. It exists only because of the social penalties of cross breeding. That's why I put the most famous specialist on race out of business. Now the racists won't be able to misuse his work to prove Negroes are inferior because Negroes don't exist—a strictly artificial category. Don't think I'm attacking your thesis—I just want to keep the racists from doing more harm to your people."

Who needs racists, thought Welmath, with friends like you, you patronizing Mother. Then he defended his position.

"Well, sir, that's my point. People do draw this line. But it has results for human biology. If there is little cross-breeding, why, that makes for relatively separate gene pools, which is what races are, by definition."

"But it's *wrong*," insisted Peter.

"That may be," said Welmath, "but it's *there*."

Dr. Ropes impatiently moved his chair closer to Welmath, an unconscious gesture of possessiveness over his candidate.

"Getting back to my question . . ."

"Why sure, Dave. Go right ahead. I just wanted to clear up this other point for the record."

The other examiners were making insipid notes, small fry in the department, waiting their turn. They were there not to judge the candidate, but to be judged on their questions by their chairman.

"Mr. Welmath—Roy. You've shown us that Negroes, on the average, test out as line integrators. That is, they tend to have a feeling for handling data, events, facts, concrete things of all kinds. And that whites, on the average, test out as point integrators, that is, with a feel for pattern, form, structure, the systematic framework of everything."

"That's right," said Welmath, "content orientation *vs* pattern orientation."

"I must say, you certainly are a *point* integrator yourself, if this dissertation is any indication," said Dr. Ropes.

"A tendency is not a picture of everybody in the group."

"True, true, of course. Averages again. Not everybody in a group, is average, is he?" Ropes felt he had to answer his own question with "Of course not" before going on.

"Getting back to my original question. Do you believe, in your opinion, that the tendency for line integration among Negroes is hereditary? Or not?"

"I have no opinion because it is of no importance either way. I am dealing with different ways of being human. Differences in the use of mental facul-

ties, yes, but differences in kind, not quality."

"A responsible attitude," injected Peter. "I don't believe in these differences, but it's a very responsible attitude you've taken toward them nonetheless. And now, I've got to catch that plane, and after that I have a trip to Rio . . ."

"Are there any other questions?" asked Dave. "Pete really does have to catch that plane."

The other faceless members of the committee nodded no. They never got a chance to show off their intelligent questions, all written down and cross-indexed before them on note pads.

"In that case, then," said Dr. Ropes standing up, "it's time for the candidate to leave the room while we deliberate. Roy, if you will . . . yes . . . if you'll just step outside the door there. Yes."

The door closed.

"Pass in the first column, no revisions" said Peter. "That's what I would recommend. All agree?"

Everyone did. They signed the documents testifying to the fact, one for the university president, one for the dean, and one for the departmental files.

"This is great," said Dave. "It'll make a great book."

"Not so fast," said Peter. Welmath agreed not to publish."

"But I've already pushed it with my publisher—they're hot to get it," pleaded Dave.

"Welmath tells me that he feels his work is too controversial to be let loose in the world the way things are now."

"But my God! The rules are you *have* to publish, or no degree."

"Tut, tut," said Peter, palm outward in defense against all nonsensical complications. "University Microfilms at

Ann Arbor. All dissertations go there, anyway. Technically, that's publication, and it makes for safe obscurity. In that little chat we had, Welmath offered to settle for this out of his deep moral commitment for the future of the species. Well, I *must* get going. If we could sort of finish up here . . ."

Dr. Ropes pocketed his cold pipe. Then he turned slowly toward the door and admitted Welmath to a round of handshakes with everybody. After that King Peter picked up his staff and strode out. He was followed by the departmental underlings, who importuned him for job recommendations and hints for writing up foundation proposals. He trailed a cloud of followers wherever he went:

Dave and Welmath were left alone in the room.

"I certainly wish you a fine career," said Dave, offering his hand once more.

What career? thought Welmath. The next step after the degree is getting the dissertation published, in book form or broken up, chapter by chapter, into a series of articles for the scholarly journals. He had been unchurched the moment he got his degree.

Dr. Ropes was spared the embarrassment of what to say after finishing the handshake by the appearance of the departmental secretary, a smart looking young woman groomed with expensive Afro-bouffant and stylishly dressed in leather mini skirt and boots. She brought an urgent telephone message for Peter. Dave grabbed the message slip. "I'll get it to him," he said on the run, and dashed out to join the cloud trail scudding across the campus toward the cab stand.

"How does it feel to be Dr. Welmath?" asked the secretary.

"Nothing different, maybe something less," said Welmath. He sat down in the seat he had been examined in.

"I don't blame you," said the secretary, moving around to stand behind Peter's chair at the other end of the table. "I heard what this Mr. Big made you do—I listened over the intercom. And you just sat there and took it," she scolded him.

Welmath made a small helpless gesture and said, "What could I do about it?"

"I know. I know."

"That wasn't so bad. It's what comes after, like now."

The girl came over and sat on the corner of the table next to him.

"Maybe you won't be so uppity now about joining the Panthers. Us soul folks has got to stick together. Right, baby?"

"*Extra ecclesiam nulla salus*," said Welmath.

"Does that mean yes or no?" she asked, stretching her long fingers against the straight lines of her hips.

"No solace outside the church."

"Who said anything about churches?"

"You did."

—Eugene Stover

(Continued from page 9)

enough for them to get away from the Great Conclave Hall. They were each in a very great rush to get back to the home district and start plotting again individually to win. So perhaps it is just as well that a voice hailed them from over by the steel shade trees hard by the jet-tube station, just as they were leaving. Out of the shadows a tall man came, carrying a metal box. He called to the four figures cheerfully, "It's not midnight! I'm still on time, even if we

did have a little unexplained drop in the tube pressure when we were just west of Austrania. Come on back; I have much to tell you. —Ha, this metal box is empty; it is but a souvenir!"

They were just removing, a little shamefacedly, I should guess, the third box from under the floor when he launched into all the gory clinical details of his fifth brain operation in ten years. "Sure though, it was a pleasant ten years," he said. "A kind of vacation really, while you Fine Four got in some high administrative practice running the country. I hope you did well. I'll soon see whether you did or not. —And sure, I'd prepared for those ten years, as I hope you don't mind. A man can get blood and spare parts for himself almost anywhere in the world now. And flesh-strips. And intro-ven to feed those flesh-strips. My brain, the one irreplaceable thing, I took along, as you noticed, to that very advanced outpost of Austrania. That's where you sent it, as per the instructions. And thanks!

"Death?? Yeah! I did have that little joke going, didn't I? But did you really believe that I, the Great Leader of People Must Last Forever Land, could be very serious about such an investigation? But perhaps there was that little time—yes! And all I remember from it—that time when my mind checked out at the Great Conclave ten years ago—are some people pumping my arm, a bundle of hard back slaps that seemed to contain needles, and a lot of loud raucous laughter so jubilant as to seem almost obscene. A joke! My death—any death—a joke! Well, I guess I don't know of any fitter or more knowledgeable way ever for you to look at it."

—David R. Bunch

Sentence In Binary Code

This powerful vignette was first published in JEREMY, an obscure British little magazine, under a pseudonym. Now, under his own name at last, Christopher Priest tells about a prison which wasn't a prison, and the way punishment might offer a way out . . .

CHRISTOPHER PRIEST

IF YOU'RE GOING to lose your body, then the Institute of Corrective Therapy would seem to be as good a place as any. That's where Joseph Turatsky lost his, at least.

After a short imprisonment they told him he was what they called politically undesirable, and conducted him under heavy guard to the Institute's HQ in Greenland. Properly applied corrective therapy, they told him, was what he needed.

The panacea for sedition, they called it. But it had to be done properly . . . and they knew all about that.

The precise method was discovered by Turatsky on his second day. After a night in a cell he was taken to a room remarkable for its air of stark functionality. Here they strapped him to a bench, gave him an intravenous injection, then connected his wrists, ankles and cranium to a complicated set of electrodes.

The someone pulled a switch set into a wall and everything—as the saying goes—went black.

Turatsky hung in a timeless spaceless void for an eternity . . . then a voice said in his ear: "Hi, bub."

He tried to look around, but was severely inconvenienced by what felt like a sudden lack of a head. In panic he tried to struggle, then gave that up too.

"He didn't have a body either.

But . . . he had heard a voice. Pretty remarkable for someone who had recently discovered he had no head, and hence, presumably, no ears. A good trick, that, but how was it done?

The voice said: "No trick, friend. It's all done by electronics. The experts call it a digital micro-pulse, and that's what you think you're hearing. But don't think of it as a voice. You've lost that for good. We all have."

Turatsky considered this for a moment. "We?" he thought experimentally.

"That's right. You and I, and approximately two thousand others, are in electronically-stimulated mental contact with each other."

"Then where are all the others?"

"They're working, bub. We do a twelve-hour shift here." The voice seemed to be very close.

"Want to see yourself?" it said suddenly.

At once, a flash of light dazzled him,

seeming to come from directly in front. It settled, and took the shape of a square frame, looking down into a brightly-lit room. Seven white-coated men were standing in the room operating various instruments. Against the far wall a figure in a drab grey coverall was lying limply on a bench. As he watched, a stretcher was wheeled in and the body laid upon it. It passed directly beneath his line of vision as they wheeled it out, and the face stared blankly up at him.

The frame faded.

"That was you," said the voice unnecessarily. "Remember that sight, bub. It's all you'll be seeing for a long time."

In the darkness that had followed the glimpse of life, Turatsky felt again a sense of helpless blindness.

"Where is this?" he asked numbly.

"It won't do you much good to know it," the voice replied. "But you're in the heart of a computer. Not in body, of course, but your mind and identity are separate and whole . . . locked in here. Specifically, you're now part of one ferrite core in a circuitry containing several thousand.

"In other words, you're inside a memory bank."

With an effort, Turatsky absorbed this calmly.

"I'm not dead then?"

"Your body is, although they probably preserve it outside. But your consciousness is alive and will be kept that way as long as possible. We're all lifers here."

"Thanks, friend."

"Call me Hank, bub."

After the initial shock had made itself felt, had become a part of his existence, and then had finally been forgotten,

Turatsky settled into his new life without much difficulty.

The hours were long but fatigue was something now unknown, even though there were no distractions to break the routine. For twelve hours of every day, data was fed into his core in binary impulses. He absorbed it, collated it and stored it.

Around him, two thousand inhabited ferrite cores, Hank and the other lifers, did the same.

At the end of the twelve hours they would pool their information, consolidate it into the bulk of the overall program, then feed this by direct link into the huge analogue Defence Computer at Elmira.

Then the cycle would start again. About once every ten days their computer would be closed down for maintenance work, this being the only kind of rest-period the lifers received.

Once, during one of these maintenance breaks, Turatsky heard Hank and four of the others conferring in minimal micro-pulse. Only fragments of the conversation reached him.

Then Hank said to him: "We're planning a mass break-out, Joe."

"You think there's a way out?"

An old lag named Constantine said: "There's a new guy here. Reckons he knows a way. Says he worked on computers before he was arrested."

"That's right, ain't it bub?"

A new micro-pulse, one Turatsky hadn't heard before, said: "Yeah. The way I see it is that we're here for what they call 'corrective therapy,' and we're learning masses of stuff the whole time right? And . . ."

They never had time to hear the rest of it. The input-circuit warmed up without warning, and binary impulses

poured into their cores.

But what the new guy had started to say made Turatsky do some thinking. He let the impulses collect in his core and tried to carry on the man's line of thought.

They were receiving data every day, but what were they doing with it all? It was like catching rainwater in a bucket, then throwing it into the river.

Suppose they held some of it back?

More to the point: suppose *he* held some of it back?

The next rest-period, he took the initiative from the new guy and straight away approached the others on the subject.

Hank was frankly sceptical.

"You say we hold out some of the data?" he said. "But what's the point? It's no use to us!"

The others within hearing laughed.

"There must be some way out of this," argued Turatsky. "Otherwise why should they preserve our bodies? That single fact seems to me to indicate that they're expecting to get us out of here sometime."

"That ain't necessarily the case," said Constantine. "What if they keep the bodies just for the sake of appearances?"

"Maybe. But this isn't just a penitentiary. We're here for *correction*. This data coming in all the time—it can't all be for defence. More likely it's a subtle form of psychological conditioning."

The new guy said: "Hey! He's got something there." But the others weren't convinced. Hank, in particular, couldn't see what Turatsky was getting at.

As soon as the next shift started, Turatsky carefully analysed the incoming impulses.

A lot of them were of little apparent use to his theory. One was a long catalogue of various fuel-weights; and another a detailed mathematical analysis of inertia-factors on various kinds of moving parts.

But other pieces of data seemed to have rather more bearing on what he was thinking of.

One was a broad summary of human psychology under physical strain. Another, a justification of total defence-preparedness as a basis for government. This latter particular was likely to be straight propaganda, and therefore very relevant.

At the end of the long input shift, he went through the data collected by the other lifers. No immediate pattern emerged, but Turatsky stored anything at all that he thought might have some use.

Data accumulated quickly and soon he was able to collect more selectively.

The lifers compared notes frequently, but he realized that most of the others had no real idea of what they were working towards, or why. Only the new guy, whose name had been Manton, Turatsky discovered, had any kind of method at all but even he had no really clear conception of how it could ultimately be used.

Once, Hank said to him quietly: "Listen bub, I think you're wasting your time. This propaganda junk isn't going to help us any."

Turatsky said nothing.

Even he wasn't yet sure how his idea could be put into effect.

Then, halfway through an input-shift, it came to him, and he knew what he had to do.

Input-data was pouring into his fer-

rite core at its normal rate. He had long since trained his mind to work against this flow and concentrate on other things. Now, not even sure himself of the mechanics of what he was doing, he cut off all incoming pulses. He held the core in a kind of electronic limbo, balancing the pressure of the input flow against the power he found himself able to exert.

Mentally, he sorted the data he held in his memory-bank, then reversed the flow.

From his ferrite core poured a stream of the strongest and purest examples of government propaganda he could find. All his mental energy poured into the effort and for a moment he wondered how long he could sustain it. Out it poured: a paraphrased binary stream of patriotic fervor, as artificially reproduced in his mind as it had been implanted there.

Hank's micropulse came in feebly against the stream.

"What are you doing, Joe?" he said, an edge of panic coloring the tone of his electronically-stimulated voice.

Turatsky tried to answer, but before he could do anything he became aware of a total and impermeable quietness.

All the time he'd been inside the computer, he'd never been properly aware of the background sensation of movement and noise. Now in its absence, he was aware of it. An unprecedented silence surrounded him, and he lay inside his core and waited.

In his isolation he thought of Hank, and of Constantine, and of Manton the new guy, and of the others. It worried him to wonder whether he, in his opportunistic use of the raw material available to them all, had in some way betrayed them.

Turatsky opened his eyes.

Sensations threatened to swamp him, his nerve-ends signalled a surplus of information to his spinal complex. There was pressure on his back from a hard bench. And light in his eyes from overhead arcs. And an odor of formaldehyde in his nasal passages. And wetness against his skin. And cold.

The luxury of sensation . . .

Fluid surrounded the lower half of his body, and trickled away through grooves in the bench he lay upon. He was in a plastic case, and as he moved the sides dropped away and allowed more of the outside air to enter. It was excruciatingly cold.

Overwhelmed by physical sensations he moved experimentally, and rolled off the bench. He fell heavily to the floor, and with trembling arms and legs tried to stand up. Using the top of the bench he levered himself to a semblance of standing, and peered round.

Attached to the casing he noticed a neatly-printed sign bearing his name. Underneath was the legend:

Rehabilitation Committee
**ESCAPED PRISONERS
PLEASE REPORT
TO BLOCK D FOR
REHABILITATION**

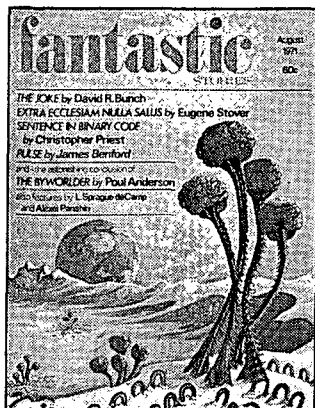
He looked around the vast hall he was in, and saw hundreds of plastic cases similar to the one he had been in. Each one contained the body of a man.

In the next case to his lay the body of a small, wiry Negro.

On his sign was written the name: Henry Lucas Wilkes.

Turatsky looked at the Negro for sev-

(Continued on page 25)



(The Story Behind the Cover)

PULSE

JAMES BENFORD

James Benford is Greg Benford's twin brother and, like Greg, he holds a PhD in Physics. But, "While Greg's into the theoretical end, I build the hardware"—the devices which will ultimately harness the power of hydrogen fusion, as a matter of fact. Despite his scientific background, Jim's first professionally published story is a fantasy, an oddly gripping piece written with complete fidelity around the painting on our cover in this issue . . .

"**I**T WAS THE LSD I took before breakfast that started it."

LeRoy looked over at her. Another shocker, he thought. "Why do you want to impress me?"

"I don't!" She seemed outraged by the idea. "It just started that way." She subsided.

"Jenny, when you asked about Gestalt Therapy, I told you that the only rule was honesty. You seem to feel you shouldn't try to impress someone. What's your objection?"

"Well, misleading people into being impressed is dishonest."

"And if you really are impressive?"

" . . . guess that's all right . . ."

She looked baffled and glanced at the intimidating Zen sketches on the walls.

"What about the LSD at breakfast?"

Might as well help her get unstuck this first time. The initial session was a little hard on them.

"It wasn't at breakfast, it was before."

She quickly moved onto safe ground.

"It helps to have an empty stomach, so it gets into the bloodstream faster. By the time I'd finished breakfast, it was on me. Only this time it was different."

"How?"

"Usually, it's the stuff everybody does. When you first take it, you play around with your senses . . ."

"Try to say 'I' instead of 'you'."

" . . . well, I play around with my senses and after a few trips I moved on to the ego-death and . . ."

"Ego-death?"

"Yes, you know, ego-death. Don't you know about acid?"

"I've not gotten around to taking any," LeRoy said stiffly. He had a glimmering of realization that he was defensive about his inexperience with drugs.

"Ego-death can't be described," she said, delighted at winning a point. "The breakfast trip wasn't like that anyway. Early on I was going through the usual thing of being absorbed in detail. I was looking at the texture of the walls, the back of my hand and so forth. The wood of the breakfast table had patterns in it so I looked at it for a while and it began to throb."

"Throb?"

"I looked it up once; it's called the retinal pulse. When the heart beats, the blood pressure goes up a little. If you look for it, you can see your whole visual field light up a little on each heartbeat." Her voice had begun to drone. "It's a small effect, caused by the expansion of the capillaries in the retina. But on LSD it's a lot easier to see. It sure was strong that time. As I was looking at the table top, the pulse came on stronger. The wood pattern started to change with the pulse. It

seemed like I'd been watching it for an hour or so when I realized I wasn't in the kitchen any more. I guess it was the silence that I noticed first. There weren't any background sounds. I looked up and the wood I was looking at wasn't a table, it was the root of a kind of tree-like plant. On the moon."

"Do you often have this hallucination on LSD?"

She blinked and her attention came back to the room. "It wasn't a hallucination! I can always tell when something is an acid vision. It had the *feel* of a real place and it didn't go away."

"And this was the moon?"

"Yes, the Earth was up in the sky, just like in those Apollo photos. I didn't see any craters. In fact, it was pretty much like a desert: long, low, flat. Dry sand that kept getting in my shoes; and those strange plants with tops like brains and roots like worms . . ."

"But the moon has no plants. And it doesn't have any air either. How did you breathe?" Since she was maintaining the reality of her vision, she should be made to face the obvious flaws squarely.

"It had to be the moon, I could make out the continents on Earth. I don't know about the air, but how do you *know* there aren't any plants on the moon?" She was full of confident ignorance.

"Go on with your story." Didn't want to get too deeply involved in her rationalizations just yet.

"After I got oriented, I just wandered around, looking at the plants. It was hard to walk in the sand.

"Later I came upon a rock formation and spent a lot of time exploring it. I didn't see any sign of other people. Anyway, after a few hours I fell asleep.

When I woke up, I was on the living-room floor and it was afternoon."

Silence fell.

"Has anything like this happened to you before?" he said, casting about for something to work on.

"No. Never."

"Well, I want to think this over," he said, without a thought in his head.

On the next two visits he had her repeat the story, identifying with different elements each time.

Once she was the moon: "I want to swallow people up, baffle them. . . they'll never find anything in me. . ."

Another time she was a plant. "I'm hard, coarse and old . . . I wish someone would burn me . . ."

On her fourth visit she told him she'd been there again.

"Did you take acid?"

"No, I was listening to music in the evening. It was soft and mellow and I just drifted away. I was lying on the couch. After a while it began to get cold, so I tried to get up to turn the heat on. There was no couch; I was lying on the sand. I stayed there until morning. By this time I was in bad shape, hungry and chilled, so I tried to walk to find help. I was stumbling along, complaining to myself. Right in the middle of walking around a rock, the world tilted and I was turning a corner in my house. The radio was still on."

LeRoy stared at her. She didn't show any of the signs of 'broadcasting' his other patients usually did. No embellishment. No seeking for approval. "You don't expect me to believe all this, do you?"

But he was starting to.

"It happened again. On a bus."

"What set it off?"

"The rocking motion. And the quiet. Ever notice how quiet it is on a commuter bus? Except for the bus sounds, everyone just sits there glassy-eyed."

"Yes, it does have a hypnotic effect."

"I was only there a few minutes. When I came back, I was on a street. Must've been the place the bus was when I left."

"Stay off of planes," he said.

She came into the room.

"Did it happen again?"

"No." She crossed the thick rug soundlessly and sat down.

It was summer and the office was warm. This was his last appointment for the day.

"Let's go back to the first time. Tell me how it started."

"I was looking at the hardwood tabletop. It had a knot pattern in it and a weird wavy texture. I stared at it up close, so I could see nothing but the brown wood. Gradually, as I looked from light to dark to light, the pulse came."

"The retinal pulse?" He leaned forward intently in his leather swivel chair.

"Yes. Have you ever noticed it?"

"How is it done?"

"Just concentrate on a pattern. Try the rug. Notice how the ovals stand out against the background?"

LeRoy looked down at the rug. Yes, the greyish ovals were rather prominent. He stared at one. The discussion was not going as he had planned, but sometimes it was better to let the patient take the lead.

"Get closer," she said. "Try to get one to fill up your field of vision."

He lay down on the rug, scanning its pattern. Why hadn't he ever noticed it before?

"Now, concentrate on the pattern. Blink if you have to, but don't look away . . ." She went on, encouraging him in a soft voice.

LeRoy gazed down at the oval. It began to seem quite large with many details he hadn't noticed before. In fact, it was rather unreal looking. He concentrated on the edge, letting his eyes relax. That was easy; it had been a long, tiring day. He could feel his body touching the floor. He became aware of slight tensions he still had and slowly his muscles relaxed. The image seemed to shimmer a bit. Gradually the shimmer coalesced into a pulsing. It beat in time with his heart. His whole body took it up and the pulse became stronger. Her voice seemed to have the rhythm too, although he wasn't resolving the sound into words. He saw less and less of the oval, more and more of the pulsing, throbbing cycle. He dissolved into it. The pulse and the sound went on.

They stopped.

He was looking at a stone. A gray oval stone.

He looked up. Desert all around. The heat of the sand came through his clothes. The bright sun blotted out the distance.

Her skirt rustled as she stood up and brushed the sand away. "That was the worst part of it, really," she said. "No one to talk to. It's going to be nice to have someone here when we pass through." She grew paler until he could see the background dunes through her. "We? There are more of you?" he asked.

She smiled and disappeared.

Stunned, LeRoy looked around. Miles of arid desolation, long low dunes.

Then he saw the Earth hanging in

the sky. But it wasn't right. There weren't any clouds. The polar cap was too large and the colors were all wrong. And why should he be seeing the cap anyway? Didn't the moon orbit around the equator of the Earth? But here he was, looking at this strange Earth like looking at a globe on a low table. He could see the continents clearly. They were distorted.

He looked away. It was all too confusing. His eyes fell upon a tall plant at the crest of a dune. (Dune? Dunes on the moon?) It *did* have a brain-like top, like she said. Better stay away from the thing.

It was getting hot. He began to get up. Sand fell from his suit, shifted into his shoes. His mouth was already dry.

God, what is this place? Not the moon and that's not Earth either. Where had she gone? She'd said there'd be others. Who would they be? And from where?

It was going to be a long wait.

—James Benford

(Continued from page 21)

eral minutes, his hands resting lightly on the lid of the case. Finally he muttered: "Sorry, bub."

He shivered, and walked away to find Block D, wondering how long he could successfully play his new role of patriot.

At the end of the next shift, Hank and the other lifers sensed Turatsky's absence.

"The louse," micro-pulsed Hank, spitting into the void.

—Christopher Priest

THE BYWORLDER

(Second of Two Parts)

POUL ANDERSON

Illustrated by MIKE HINGE

The Sigman floated serenely in the sky, its ship an awesome weapon for the first nation to bridge an alien communications gap. But communication, as it turned out, was only the first problem . . .

I

Synopsis

"I'm a sigaroon," Skip explained. "Migratory jack-of-all-miscellaneous-trades, entertainer, you name it and I'll tell you what to feed it."

But this was only his way of seeing and savoring the world while he was young. Basically he was an artist. He used his talent to break down Yvonne Canter's reserve, so she would listen to the idea he had gotten about the being from Sigma Draconis.

It had arrived three years earlier, in a spaceship that used ram-scooped interstellar gas to power a photon jet that could push it close to light speed. The star of origin was identified only by an educated guess—because there had been almost total failure to establish communication. The lone spacefarer occasionally put its vessel into Earth orbit and flashed a signal which meant humans would be allowed into a section conditioned for their life-support. After a few days of desultory contact, noises

and diagrams that made no sense, it would give them the dismissal signal and hie off to some other part of the Solar System.

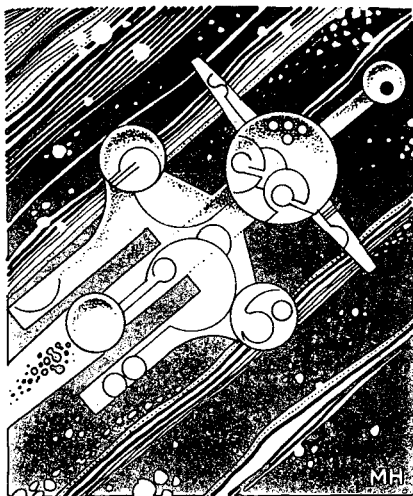
Resembling "a cross between a slug and a pinecone" with appendages symmetrical fore and aft, it was evidently still more alien in its mentality. Scientists dreaded that it would depart without having revealed anything. Some humans hoped for that.

For it was a fragmented race that the Sigman had found. The most urgent problems of the twentieth century had seemingly been solved, or were in process of solution, in the early twenty-first. The nations kept an uneasy peace. A ban on the planet-killer weapons was enforced. Revolutionaries were extinct. New technology kept famine at bay, had effectively ended pollution, and was even restoring the environment in areas where ecology had collapsed. Such social devices as guaranteed income made readily available, to all citizens of the most prosperous countries, the fruits of a largely automated, fantastically productive industry.

Seemingly the world was headed into a better day. But old fears and hatreds were not really dead, and change had created whole new splits and tensions. Only a small minority of ultra-skilled professionals were needed to keep the machine going; they, hard-working, dedicated, inevitably made the important decisions, and thus the managerial state had arrived even if old forms of government continued solemnly to be observed. The managers, the scientists and top-flight technicians, their subordinates, and those who continued living as conventionally as their own superfluosity allowed—these made up the “Ortho.” But the Underworld was also large, powerful, tightly organized and well equipped.

And then there was that growing minority lumped together as the “Byworld.” The term referred to those who, temporarily or permanently, had abandoned Ortho ways without turning to crime. The material wealth so abundantly available let them live adequately if not lavishly, for very little work; or they could soon accumulate the capital for more ambitious projects. Some were sigaroons, like Thomas “Skip” Wayburn. Others were nearly Ortho, like the Freeman who used modern agricultural technology to re-create the patriarchal landholding family, or the sea gypsies whose nuclear-powered fleets lived off the oceans. But many were more eccentric, like the Keepers—full-time reclamation workers—who had borrowed Romany styles, or the various utopian communities.

This division of society into subcultures was most marked in the Western countries, but beginning to appear elsewhere. The principal holdout was China, still tightly controlled by a Communist



régime though somewhat more open to the outside world than it was in the days of the prophet Mao.

Skip had been visiting a religious utopia when he got his inspiration. He thought he knew what the Sigman had come for, why it had thus far shown so little interest in communicating with man, and what to do about that. A letter describing his idea would never get past some bored assistant secretary; he had to contact the higher-ups in person, with good recommendations. He began with the chief of a Keeper group who, impressed, agreed to search among his own contacts and find someone who would pass Skip further along the chain of introductions.

Meanwhile the Sigman had flashed another invitation; but by now discouragement was so general that only two countries lifted spacecraft with experts who had been working on the project. Yvonne Canter from the United States was a shy, lonely divorcée; she was also a brilliant linguist who thought that she

had, at last, found the right approach. She turned out to be correct. Abruptly the Sigman did begin work on learning the artificial language she had sketched out and extending its scope. The other who came up was Wang Li of China, himself a somewhat rigid and reserved person. Yvonne explained to him: previous attempts had failed because the sheer ugliness of the noises and pictures made had driven the Sigman away. To it, language must obey esthetic rules; she had used a computer to deduce some of these, as well as prove that the Sigman rate of communication was lower than the human.

When their host dismissed them, both were glad enough of a chance to rest. Yvonne announced her triumph over the radiq of the spacecraft bringing her down. It created a worldwide sensation. She was mildly rebuked¹ by Colonel Andrew Almeida, an administrator at Armstrong Astrobase, for not keeping her discovery secret. In Peking, Wang suffered a sterner reprimand from General Chou Yuan. He was told he should at least have urged Yvonne not to broadcast the news, and that he must start at once on a crash program to develop the man-Sigman language. If possible, he was to surpass the Americans, so that he could talk to the alien without them understanding.

The idea was the same in either nation. The photon-drive spaceship alone (not to mention any other capabilities the Sigman might reveal) was an absolute weapon, invulnerable to anything Earth had, its radiation able to vaporize whatever it touched. Such a thing would grossly upset the balance of power. Only one's own country could be trusted with it; certainly no rival must be allowed a monopoly.

For a long time to come, of course, everyone must play by ear. Yvonne agreed to continue working under security wraps; Almeida was her friend, after all, and on the team she could be an influence against chauvinism. She returned to her apartment. There she was confronted by an assassin. She got his gun away and killed him. The shock and remorse brought on nervous prostration. She had to go off for a while to recover, and refused to be guarded. Almeida arranged for her to travel with the Vikings, a Norwegian sea gypsy outfit, under the name Yolanda Cohen; only Admiral Granstad and his wife would know her true identity in the fleet.

The slain assassin turned out to be a professional Underworld gunman. Someone had obviously hired him—but who? Was it merely one of the lunatics who feared the “Sigmanization” of humanity?² Or was it a foreign government that wanted Yvonne, America's leader in the communication project, out of the way?

On Skip's behalf, Keeper chief Keough had been making global inquiries by phone, looking for someone who could give the sigaroon entrée to Yvonne Canter. Her achievement and prestige made her the logical person to approach. The news of the attempt on her life was dismaying. But Granstad, an old friend of Keough's, got his back up when Almeida tried to pressure him into accepting a disguised agent aboard. He informed the Keeper of the situation and agreed to take Skip along, provided that the young man respect her need for privacy and rest.

The first few days at sea, he cut a social swath among the crewpeople. Then he got into talk with her that soon became serious.

SHE DROPPED her incognito for him the same day. They maintained it in the presence of others, except the Granstads, whom they seldom encountered. This cost Skip the friendship of the blonde nurse, who started wondering why he spent hours on end with that skinny Cohen woman, old enough to be his aunt—well, *years* older than him—that he could have spent with her. She didn't take kindly to his explanation that Miss Cohen had a wonderful mind.

Oh, well, there'd been a few almighty enjoyable nights. And he kept on playing an occasional game of ball or bending an occasional elbow with the rest of the younger set. Though equally puzzled by the change in his behavior, they didn't ask him the reason. Individualism would not combine with close quarters and need for disciplined cooperation unless you added the catalyst of respect for privacy. Doubtless they decided that one must expect eccentricities in a sigaroon.

Skip quickly got on first-name terms with Yvonne. They were both afire, exploring the consequences of his hypothesis, laying plans, making preparations. Barring the unforeseeable, she was pledged to stay in the fleet to Los Angeles. Colonel Almeida and company needed that long at a minimum to arrange for her safety. She fretted, until she discovered how she and Skip could put the interval to use. *Ormen* could draw on data lines, computer banks, worldwide visiphone service, as readily as her workroom at home. The Reader-Fax could print out a copy of any item in any important library anywhere, with any degree of fidelity for which the customer was ready to be charged.

There was even a Mitsui Sculptor, to do a similar job for three-dimensional objects whose scans were on file. Normally these were statues and ceramics, but Skip insisted on it for paintings, and hang the expense.

"Texture's more important than people realize," he said. "They don't know how sensitive their own vision is, trained or not. The fact's most obvious in oil painters who put on thick daubs, like many Impressionists. Don't think it doesn't matter for others, though. They can be as slick as Dali, but that surface is not optically flat. Same for Oriental inks and water colors. In them, the cloth or paper becomes part of the composition." He hesitated. "Uh, Uncle Sam will reimburse you for those we've ordered here for examination. Won't he?"

"Silly," she laughed. "I can debit him directly."

They stood on the fantail, late after a day of projecting image after image on the screen, making choices, continuing to debate these while they went out for dinner. Nobody else was here astern. The throb of full speed was tranquil in the ship. Above shone stars, and a moon that built a bridge over darkly sheening waters and turned the wake into a white river. The lights of a companion vessel glowed tiny and jewel-colored across kilometers. The air was mild, quiet save for that low beat of engines, the rush and gurgle of passage. Yvonne and Skip leaned on the taffrail, side by side, gazing aft and drinking peace.

"Good," he said. Musingly: "You know, I've wondered if modern repro is altogether a desirable development. I mean, look, if you can have a Leonardo or Monet or whatever in your

living room at reasonable cost—not a print from a photograph, not a copy by some hack, but in essence the real thing, every shade and contour identical—well, won't you? Instead of traveling thousands of kilometers to break down your arches in a gallery?"

"Y-yes. At home I collect Matisse and Picasso . . . and Byzantines, by the way."

"What I wondered about is, what's going to happen now that the modern artist has to compete this directly with the masters of two or three thousand years? I see us these days as on the brink of a renaissance. You know what absolute garbage-pit bottom we hit in about the middle twentieth century, don't you? Or have you been spared? I see a new idiom with all sorts of potentials, a blend of Western, Oriental, aboriginal, and scientific motifs, I see it beginning to develop. Will it get the chance, though? Will enough aficionados pay for it? And the artist himself, surrounded by overwhelming greatness—what'll that do to him? One reason I went on the wing was to try and get back to life itself and find how *I* look at things."

Yvonne patted his hand. She smiled in the moonlight. "You're an idealist." At once, as if frightened, she withdrew the touch and reached into her belt-purse.

"Who, me?" His ears grew warm. "Lady, no! I do what I want, not a lick more if I can help it. You're the service-to-mankind specialist in this duo."

She took forth a pack of joints and offered it to him. "Thanks," he said. "Reckon we could both stand a relaxer, high-keyed the way we are." They struck and inhaled. "Although," he continued after the first tingly breath,

"you thrive on work. You were like a spook when I met you. Now, a week later, on the job ten-twelve hours a day, you've fleshed out, you don't jump at shadows, you joke—"

That was not entirely true, he thought. She appreciated humor of certain kinds, but hadn't much of her own. And, while physically she was about back to normal—which he enjoyed seeing—her nerves could still attack her. As now. The red end of her cigarette trembled between her fingers, waxing and waning with inadvisably quick, deep drags.

"Did I say something wrong?" he asked.

She shook her head. Pain edged her voice. "Not your fault. You accidentally reminded me. I am not altruistic. If only I were, just to the average extent, I wouldn't have made the total mess I did."

"Are you kidding? Yvonne, you've done tremendously."

"Have I?" The pot must be grabbing hard and fast, in her exhausted state, for her to let down the barriers so. "I killed a man. I see his dead face before me, pop-eyed and slack-jawed in bewilderment. He'd be alive if I'd simply wounded him."

"Huh? I knew a boltless nut tried to murder you, but the newscasts never—"

She told him, in short harsh words between inhalations. At the end, tears rivered down her cheekbones, turning them silver in the moonlight.

He clasped both her shoulders and said: "Yvonne, listen. You're not to blame. Not an atom's worth. You were scared out of your wits. And you'd no experience with guns, had you? That must've been a double-action weapon. You can empty the magazine in sec-

onds. You didn't have *time* to know what you were doing. And you did nothing evil anyhow. You were defending yourself. The world needs you. The world is better off without that creature, that thing."

"That human being, Skip."

"Come off it. Shooting's an occupational hazard in the Underworld. Would you feel sorry if the incident had happened to a stranger and you heard about it?"

"This happened to me! Y-y-you've never killed a man. Have you?"

"No. I've come close. And I always carry a fang. Illegal as typhoid, but I sew a hiding place into every pair of pants I buy, and I keep in practice. If someday there's no choice, sure, I'll open him up. Which'll cause me neither pleasure nor remorse."

"You're telling me the same as everybody else." She turned and looked back out to sea. Skip let his right arm slide down around her waist. She sighed and leaned lightly against him.

"Sorry." Her tone was muted, rather slurred. "I shouldn't wish my troubles on you."

"I'm honored to help, if only as a convenient shoulder," he said. "And I don't pass on what's told me in confidence."

"Thank you, Skip." She smiled, however forlornly. Her eyes remained fixed straight before her. "I'm healing 'bout as fast's the therapist predicted. I don't often think 'bout . . . that . . . any more, an' it's rarer yet I feel guilty. Soon I'll stop all . . . al-to-gether. Doubtless, awhile afterward, I'll stop wondering if I do wrong not to feel guilty." She let out a slow, smoke-scented breath. "This b'longs to a whole complex of troubles I've had throughout life. Be glad you're

'n extrovert. Introversion's no fun. My marriage disintegrated b'cause I saw too seldom that he needed more of me 'n I was giving. And do I really want to be as alone as I am?" She tossed the stub overboard. "Hell with it. I'm stoned. Better go to bed."

He escorted her to her cabin. At the door, in the empty, ventilator-murmurous, drive-quivering corridor, she smiled at him, unsteady mouth and imperfectly focused eyes. "You're a darling," she whispered.

He rejected temptation, bowed and kissed her hand, and left with a single "Goodnight."

They had taken to meeting on the promenade deck each forenoon, to walk around it for an hour and discuss their work. Skip reported there next day, unsure whether Yvonne would. She did, though later than usual, stiffly striding. "Hi," he greeted. "How are you?"

"Fine, thank you." He could barely hear her, and her look avoided his.

"'Fraid you might've been sick," he continued glibly. "Contrary to folklore, people do get sick from an overdose of mary jane, and we tied one on last night, didn't we?" *Give her an out.* It would be only a white lie. Let her blame it on the pot. A *time-honored custom*. "At least, I did. Can't remember too well—hazy recollection we said things which seemed important but probably weren't—drugs are sneaky when you're not a regular user."

She gave him a quick, startled glance. "Do . . . do you feel ill, then?"

"Not bad. The judge gave me probation." They started their walk at a brisk pace. The wind blew loud and chill, the waves ran heavy and gray-green,

under many clouds. Ormen had entered the Japan Current.

"Let's lay the art question aside for a while," Yvonne proposed, more quickly than was needful. "I've noticed you don't seem to understand how Sigman biology differs from terrestrial. The facts may suggest something to you."

What is suggested to me, he thought, is that you want a safe topic—art being concerned with emotion—till you get over having bared yourself. Okay. "Well, I know the chemistry's another. Where analogs exist, amino acids and whatnot, they're apt to be . . . mirror images of ours . . . isomers, is that the word?"

Yvonne took a cigarette: tobacco, of course. "I'm thinking about cellular organization," she said. "The biological specimens we were given were both plant and animal. A few of the plant samples were of more than microscopic size, none of the animal. But the animalcules included both protozoans and metazoans—single-celled and multi-celled—and there are several grams of tissue that may be from a member of the dominant species. Naturally, our scientists failed to culture or cultivate anything, and the cells didn't look similar to any of Earth. Some cytologists claim they've identified what corresponds to chromosomes, ribosomes, et cetera. Others dispute this. No matter for now. The broad general principles seem roughly the same. Don't they?"

"I reckon," Skip said.

"They aren't! The metazoans are put together completely unlike the main, terrestrial kinds."

Yvonne paused. A whale breached a ways off. Skip thought: *The human beast has redeemed itself to the extent of establishing halfway decent conservation policies. How shoddy my life would be with no miracles like that*

yonder! "—easiest explained by starting with—" *Oops, I forgot.* He made himself pay heed to the woman. Her lecture might be a shield for her; nevertheless, she delivered it well:

"—the conjectural development of such organisms on Earth. I'm not a biologist, I may get details wrong, but here is how I understand the idea.

"The original aggregates of cells must have been mere clumps; something like them survives in algal ciliate balls. They went on to become hollow spheres, often two concentric spheres, like the modern volvox. But presently—this was still in the Pre-Cambrian era, remember—such spheres developed specialized inner and outer walls. They had an opening at either end, for intake of nourishment and excretion of what they could not use. From simple gastrula like that is descended almost every kind of animal we know. Some formed mere colonies, like the sponges and corals. But others joined end to end, becoming the first segmented worms.

"From those early worms in turn" (Skip refrained from the obvious double pun) "evolved all the higher forms. In an elaborated version, we keep to this day that old, basic tubular-modular structure. The bilateral symmetry, the oral-digestive-anal tract, the ribs and vertebrae show it. Even branched-off organs like heart and lungs adopt the canal principle, though the lungs have become sacs—well, I needn't illustrate further.

"This isn't the only way to evolve biological complexity, I'm sure you know. Plants haven't followed it. And if we've been given a fair sample, no Sigman life has. Perhaps the closest terrestrial analog to it is our ductless glands.

"Here on Earth, certain protozoa swim by means of cilia, hairlike processes along their sides. Something similar exists in what we have seen from the Sigman planet. But not identical. Those protozoans typically are not flat but spheroidal. The cilia are spaced over the entire surface, and they are for more than locomotion. They whip the water, and any organic matter it may contain, toward the cell. The animalcule has no particular intake or outlet; its skin is permeable, and the currents raised by the cilia force the foodstuff through to the interior. Oh, more is involved than that. Chemical action on the membrane probably breaks down the larger molecules to smaller ones that can pass in, and interior processes must be extraordinarily complicated. But our biologists would need a great many living specimens to trace the details."

Yvonne stopped for breath. Skip said, "I can guess what's coming. Yes, I remember vaguely reading an article. My private life at the time was overloaded with new impressions and—Point is, when these Sigman microbes decided to join forces, they held hands instead of kissing."

He was pleased to see a flash of grin. "You would think in those terms," she said. "Yes, they linked some of their cilia. These lost the original sweeping function and became tubes for support and for the conveyance of fluids. In various parts of the tissues our people have studied, the tubes have shrunk till the cells are in direct contact. But this is for special purposes, as we use independently swimming blood corpuscles. The basic Sigman metazoan structure is a lattice of spheroids held together and integrated by rods. The rods may be solid, hollow, or permeable;

they may be rigid or flexible; that depends on what their particular function is. The topology remains the same. So does the permeability of the cellular skin, however modified this has been here and there in the course of millions of years."

They walked a lap in thoughtful silence. A Viking passed by. "*God morgen, du,*" Skip hailed. His accent wasn't bad. The sailor responded. Skip returned to his brown study.

"I believe I see where this leads," he said at length. "Check me out. The basic symmetry is not bilateral, it's axial or radial. There's no tendency, anyhow much less tendency than here, to develop a definite front and rear end. You get much less development of specialized organs, too. The permeable cell can take in its own air and water vapor—it's kept free cilia, developed into efficient little fans, am I right?—and, uh, it excretes waste products directly and continuously. Our Sigman friend needs claws to break down solid food, but only to the point where the juices seeping from the surface between those claws can reduce it to a mush that dissolves and passes on up the arm. They must be even fiercer than our stomach acids, those!"

"You catch on fast," Yvonne nodded. "It's thought the same juices probably circulate throughout, in diluted form—the main protection against disease germs. As for physical protection, the skinless lattice would be hopelessly vulnerable, except that probably most land animals have staggered pinecone shingles like our space traveler. With air and water passing freely between, the animal isn't insulated from sense impressions, the way a lobster or turtle is. Therefore the evolution of intelli-

gence isn't inhibited."

"Uh-huh," Skip said. "And with four stalked eyes in addition, and who knows what other extensible organs, I'll bet the Sigman experiences more than we do. Our only cells that make direct contact with the environment are in the breathing apparatus, parts of the food tract, and the skin, and those last are dead on top." Excitedly: "The Sigman's whole body does! I'll lay odds that if you limited it to human capabilities, it'd go bonkers. Sensory impoverishment."

"Oh, there must be many qualifications and exceptions," Yvonne said. "For instance, it must have a brain."

"Must it?" he challenged. "As we understand a brain? Why can't those not very specializing cells carry nerve impulses too? Maybe the Sigman thinks as well as senses with its entire body. If that's true, I envy it. . . M-m, a less compact layout than our cerebral whatchacallum. Signals take longer to cross. The Sigman 'ud think slower'n us. Which might not matter on its planet. Animals that want to make a lunch off it have the same handicap. And the gravity's weaker. You have more time to recover from a stumble or dodge a falling rock."

Yvonne halted. "Why—you may be right!" she exclaimed. "Among the features I found in the language was that it does have a considerably lower rate of information transmission."

"I recall," Skip answered. "Given the enormous sensory input, however—if we aren't building theories in mid air—well, I'd guess it thinks more deeply than us. We're quick-witted but shallow, it's ponderous but profound." He beat a fist on a railpost. "Hey, hey, hey! How about that? What type of artistic con-

ventions would develop—Zonk! Wowzers!"

He capered whooping around the deck. Finally he stopped before her and burred, "You were inspired to raise this subject. We've got to explore the notion further. C'mon, let's inspire ourselves with a morning beer in Olav's pub. A single schooner apiece. Two at most. All right, you win, three. If the sun isn't over the yardarm, we'll have them lower the yardarm for us." He tugged her arm. She resisted. "Come on, robin!" She did.

Maury Station rested on the continental shelf off the Oregon coast, about 50 kilometers out and as many fathoms down. The Vikings had a cargo of refined metals to deliver. *Ormen*, too huge for the docks, anchored at a safe distance amidst its followers, except for the concentrator ship. That one laid along the assigned pier, which projected from the caisson-mounted platforms supporting a complex of buildings and machinery.

Unloading would be quick, but Granstad had promised a six-hour stay for the sake of children who had never toured the place. The rest must keep out; their numbers would swamp the available facilities. Most of them had visited Maury or similar colonies before. And the fleshpots of Los Angeles, where organic products were to be landed, were now only a couple of days away.

A few men wangled leave to go off hydrofoiling, scuba diving, or dolphin riding under the aegis of local youths who frolicked about the vessel on their big fish-herder animals. Yvonne regarded the splashing, leaping, and shouting wistfully. "I'd enjoy that," she said.

"Water's cold hereabouts," Skip warned. "The merfolk are used to it, we aren't. True, you get warm fairly quickly in a wet suit. . . . Well, why don't you? We're passengers, not under orders, nothing to prevent. And any boatman or diving guide or dolphin boy would come snorting like a grampus to oblige you." Their relationship had reached the point where his habit of speaking little gallantries to any good-looking woman didn't embarrass her. This was the first time in a week or more that he had seen her slightly unhappy.

She sighed. "I mustn't. Andy Almeida would be furious. He insisted I stay aboard, incognito, the whole trip. For safety's sake. I couldn't be Yolanda Cohen here. Not that I've ever been to Maury, but it's crammed with scientists and some are statistically certain to have met me at Triple-A-S conventions or wherever. My earlier work had applications to cetacean pseudo-speech." She squeezed his hand. "I talk too much. You go. Have fun."

"Do you yourself think you're in danger?" he asked.

"No," she said emphatically. "If the attempt on me wasn't a case of mistaken identity or something, then it has to have been the work of a lunatic-fringe anti-Sigman group. Those are known, and I'm sure the government has put the fear of the Lord in them."

"So does this Almeida own you? Will a squad of police meet you at the gangplank?"

"He wanted that, but I wouldn't have it. He gave in when I pointed out that, precisely because no one will know where I've been, no assassin can be lurking."

"Right. Well, take my word, you're

a blessed sight safer in Maury, with the sea laying nine or ten atmospheres of pressure on you, and killer whales which are supposed to be tame flippering around loose, than in Los Angeles. I've not been here either, but I know LA and I've read about Maury. They're your breed of cat, come from all over the world to study and conquer the seabed together. How can they threaten you?"

"I'd . . . I'd hate for the news to run ahead of me. A crowd of journalists would be almost as bad as a melodramatic killer."

"Okay, we go first to the director and arrange precautions. Confound it, woman, I want to see the place and I suddenly realize you can get me entree to parts I'd never be let into by myself. Let's fare! Right away! No, don't stop to change your vests. You're dressed for energetic sightseeing and I doubt they ever notice who's wearing what in an R & D station."

She let herself be swept along. They descended the ladder on *Ormen's* cliff-like side. Skip whistled and waved at a passing boat. The pilot was glad to give them a lift in exchange for a bit of gossip. From the upper structure, they took an elevator down the shaft to the central undersea dome. Five minutes afterward, they were in the director's sanctum. Three of the minutes had been spent in finding it.

Burly and shaggy amidst a clutter of oceanic memorabilia that filled walls and overflowed floor—books, pictures, instruments, an old-time diving helmet, corals, mounted fish, harpoons, God knew what—Randall Hightower pumped Yvonne's hand till Skip wondered if water would gush from her mouth, and boomed welcome. "Sure,

sure, M' lady, nothing's too good for you. I'll record a notice, for hourly replay on the entire intercom system: You must avoid strain and you don't want publicity and will they please not get on the phone to Uncle Oscar in Keokuk or Cousin Ching-Chang in Shanghai for the next few days, to blat that they personally eyeballed Yvonne Canter. They'll understand. You can trust 'em. You know what inhibited close-mouthed rabbits we scientists are. I still think of myself as a scientist. Somebody's got to administer this chaos. I sneak off to my lab when I can. Experimenting with production of alcohol from plankton. Bigger things are under way in Maury, of course. Alison!" He gave his pretty secretary, who was standing by, a pat on the bottom. "Man the guns a while. If anybody insists his business with me can't wait, drop him in the Mindanao Deep. I'm going to show these people around."

"The announcement," Yvonne reminded her.

"At once, Dr. Canter," she said worshipfully.

The remaining hours were sheer marvel. The central hemisphere was surrounded by a ring of others. These were connected by tunnels and kept at ambient pressure, allowing swimmers to pass in and out through simple airlocks with no need for compression or decompression. To go between them and the middle dome naturally required time in a chamber. Besides atmospheric density, composition must be altered, at a rate which allowed the body to adjust. The helium content made voices shrill to the point of unintelligibility. It was an experience to hear Hightower roar squeakily. He supplied his guests with headsets that stepped down sonic

frequencies. The merfolk didn't bother. They were used to the upper range, and were gradually evolving a set of dialects adapted to it.

In two-three hundred years or less, Skip thought, a whole new undersea civilization.

Windows in the compression chamber looked out upon dimly greenish-lit waters, here and there brightened by lamps or flashbeams; on crusted rocks, upward-waving green-and-brown kelp, fish, crab, lobster, shellfish, squid, fishlike humans passing, bubbles astream from the McPherson "gills" that extracted oxygen for them, a sounding orca and a man directing it—*A whole new world, Skip exulted. Arts like none that landsmen could imagine. When I settle down at last, why not a seabed colony? The biggest already have room for wives and kids. Surely a painter could be squeezed in somewhere—and Charlie Russell didn't have a wider-open range to fence with canvas!*

When laboratory workers engaged Yvonne in conversation, he found pleasure in the shapes of the scientific apparatus. He found ecstasy when Hightower gave him and Yvonne a ride in a superglass submarine. When finally they must return and the Vikings sailed off, he chattered to Yvonne over dinner as if he had been blowing pot or downing gurgles, except that she thought his talk really did verge on brilliance. His gaiety infected her. Afterward they went dancing in the Bellman Club, with champagne on the side.

At her door she said, holding hands, "Thanks for a wonderful day. Your initiative made it."

"Thank you" he replied. "Mainly for your company, but for the magnum too." He had no more resented her

buying than he would have resented buying for her if he'd been flush and she broke. "Not to mention everything else I've enjoyed because of you. What an all-time faring this has been! I'm sorry it's about to end."

"We'll be going on, remember," she breathed.

Her eyes, her lips, her slight sway forward, could not be misunderstood. The kiss lasted longer than most, and she was better than he had expected.

They broke apart. She opened the door. He made a tentative move to follow her. "Goodnight, Skip," she said gently. He stopped. She lingered a second. He couldn't tell if she wished he would insist; she was the first top-grade Orthian he'd had anything meaningful to do with, and eight years his senior to boot. "Goodnight," she repeated. The door closed behind her.

Oh, well, he thought. Maybe later. It'd be—I dunno—another dimension for something great—or am I simply curious? Unaccustomed to brooding over his own emotions, he let the speculation die and sauntered to his cabin.

"No luck, eh?" Andrew Almeida asked.

"None," responded the face in his deskphone screen. "Every combination of man-Sigman phrases, beamed on every reasonable frequency band, starting with the one on which it signalled us when it originally arrived . . . all drew blank. Not a flicker in return."

"Ump. Can radio pass through those force screens, do you think?"

"If the Sigman can transmit, which it did three years ago, it can receive. No, I suppose either it hasn't recognized our message as a plea to continue building communications, or its interest

in us remains barely marginal, or it has a motive we can't comprehend."

"Damn!" Almeida gnawed his mustache, which reminded him it was approaching an unmilitary length. "Well, at least the Russians and Chinese and the rest have failed too."

"Do you think they tried?"

"I know they did. We maintain reconnaissance. Besides, didn't we try?"

The scientist bridled. "Why are the nations duplicating their efforts? For that matter, Colonel, why have I been instructed to report to you alone?"

"The first question answers the second," Almeida told him. "If I have to repeat the briefing you got when we instituted security here, you should consider submitting your resignation."

Wang Li looked up. His wife was home early from her solidarity meeting. Moonlight came in the doorway around her, striking shimmers off the mother-of-pearl insets that ornamented his old, dragon-carved ebony chair. A breath of dewy jasmine followed, and chirring of crickets. She snapped the door shut and switched on the fluorescents. He blinked.

"Why were you sitting in the dark?" she demanded.

"Good evening, my dear," he said. "How was the assembly?"

"If you had been patriotic enough to attend, you would know," she answered.

He averted his gaze from her tall, gaunt, drab-clad form. "I am still tired after the language assignment. We had no mercy on ourselves."

"You never attend if you can avoid it."

"Not my function. 'From each according to his ability.' Besides, tonight I have a difficult matter to think through."

Yao was silent half a minute. Then, mildly, seeking to be reconciled with him, she said, "Oh, I see. Can you tell me what?"

He shifted about in his seat. "I must compose a letter to Yvonne Canter. She cannot be reached by visiphone, but no doubt a letter to her at Armstrong Base will be passed on when she comes back from wherever she has fled."

"Surely you need not ask an American's help." Yao walked closer, till she stood above him, and touched his cheek.

"I might. Remember who had that first insight. In this case, however, I wish to express my regret at her bad experience, and assure her that we, her Chinese colleagues, are overjoyed that her esteemed person escaped harm. But it is not an easy thing after all, because—"

Her indignation returned on wings. "What! An imperialist—" She broke off. "I understand we must maintain the courtesies," she said. "Why is a formal note hard to write?"

"It should not be formal. She may well think that the cowardly attack on her was instigated by our government."

"Let her, if she has a persecution mania."

Wang's fingers strained together. "And she could perhaps be right," he said around a thickness, while he stared at the floor. "My every attempt to ask was met with bland denials, until I was called before General Chou and informed that further asking would be considered evidence of deviant thoughts. Yes, I realize disproof may be impossible. I cannot be shown details of our intelligence operations. Still, I am not a wholly unimportant man. Why could no one take the time to explain to me precisely why disproof is impos-

sible in this particular case?"

He raised his eyes and saw shock livid on Yao's countenance. "You dare say that?" she gasped. A screech followed: "You dare call our leaders murderers?"

His temper broke. He sprang to his feet. "Be quiet!" he shouted. "I will not be named traitor, I who serve beyond the sky! What do you do for the people? You nag and pettily tyrannize a few score wretches who might instead be busy at something useful! Leave me! I do not want to see you again this night!"

She covered her face and ran. He wondered if she would weep.

Poor Yao. Grief welled in him. He sat down like an old man. *If she had let me explain before my worn-out nerves gave way. . . . I can imagine—I do not believe, yet I can imagine—that a decision was made to kill Yvonne Canter, not in hatred, not in callousness, but because the imperialists would use her to gain their ends. If I truly thought that, I would kill her myself, with these hands. He saw them open and empty on his lap. I do not fear her. I fear those whose ancestors in spirit forced opium on mine, sacked Peking, bombed Hiroshima, slaughtered and slaughtered to block the liberation of Korea, Malaya, Vietnam, Thailand—the list goes on too long—who blocked liberation by a wall of corpses. And I fear the Soviets who killed my father and bombed my land; I fear the Europeans and Japanese, fat, bustling, smug, who could so quickly turn back into hungry demons; I fear whoever might burn my P'ing alive, and it is so easy, so gruesomely easy to make a nuclear weapon . . . and now that spaceship, like a vulture wheeling over this fair, living Earth. . . . Poor Yao. Poor Yvonne Canter. Poor mankind.*

REAPERS OF THE SEA, the Vikings could not have kept a schedule had they wanted to. Not until the last short leg of her voyage did Yvonne know the precise date on which it would end. She arranged for the duplicated paintings to be posted to Armstrong. The government would justifiably have balked at meeting the bill for having them copied over, especially after Skip turned in his list of what else he wanted, pictures he had never been in doubt about and other items like figurines, Asian bowls, and a Grecian urn. "I may as well give you my luggage too," she told the purser.

"Hoy, keep a suitcase," Skip said. "We aren't hopping the first jet for Denver."

"I'm not sure about that," she answered against her will. "I've been thinking and—"

"Aw, come on. Don't back out of your last chance to be a free woman. I know places here that the tourists never see, and I don't refer to respectable back yards." He tugged her sleeve. "Do. Throw a toothbrush and a change of vests into a bag, same as I've done, and hang onto it. Hurry, if you want to watch us dock."

She surrendered. "I'm a bad girl. The colonel will be horrified. And he's a nice man, really."

"What you need," Skip grinned, "is practice in badness. I'll train you. Let's lift off."

The scene topside was impressive. The blue glisten of San Pedro Bay was nearly hidden under swarms of ships, tugs, barges, fisher boats, yachts, police and watercleaner craft. Private and commercial helicopters filled heaven;

beyond them, contrails crisscrossed white and thunder drifted down. Ahead stretched the immensity of the megalopolis, a thousand pastel hues of buildings checkered in green by parks, pierced by spirelike skyscrapers, knit together by soaring arcs of railway, each detail diamond-sharp through Los Angeles' crystalline air until vision was stopped by the curvature of the planet. The sound of men and machines flowed outward, a deep steady querning that reminded of the tides or of the blood-beat in some enormous animal.

It was hot, and sailors were abustle. Skip and Yvonne found shaded refuge on a lower deck. "What are these untouristy places you speak of?" she asked.

"Fraid we won't visit the most interesting," he said. "They're too bloody interesting, and I don't mean British bloody." At her inquiring look: "I once knocked around in local Underworld circles. I wasn't joining them, I was simply the bouncer in a tough nightclub. That led me to know several full-fledged Underworlders, and after I helped one in a fairly nasty fight, he took a fancy to me and— Forget it. I don't want to make noises like a romantic hero. Truth is, what I saw and heard was what decided me to move on, in spite of liking it where I worked."

Since he was happily observing the action, she could let her gaze dwell on him—disposable tunic purchased aboard, the extreme flare in the collar and red in the color proclaiming its cheapness, worn with as much dash as if it and the faded trousers and scuffed shoes were the latest mode from Rio; cowlicked brown hair, freckle-dusted brown face, boyish nose, mobile mouth, eyes big and green and the alivest into which she had ever looked. Why had

he, child of long roads and the weather, liked spending his nights in smoke and din' and the breath of vicious morons? A girl, beyond doubt. Or girls? She could imagine that body, hard, supple, and warm, giving joy to a whole chorus line.

She could imagine herself in that chorus.

I'm not falling in love with him, am I? The thought was dismaying. Or was it? She asked hurriedly, "Where do you propose we go?"

"How 'bout Afroville for lunch and browsing? Sure, you must've been there; but I'll bet you ate only at nationally advertised restaurants and talked only with shopkeepers."

"No," she said, "mainly I was at its university, conferring. They have the best sociology department in the country, which includes a couple of first-chop linguists. My colleagues were, are somewhat bitter about the ethnic façade. They don't want their community known as a variation on Chinatown."

"Then those prominent sociologists ought to get off their prominent duffs and discover how much more there is to a Chinatown than tourist traps. As for Afroville, I guarantee your lunch won't be standard prettied-up chittlin's and collar greens, and it'll be cheaper to boot."

She bit her lip. *How can I say what I must?* "You . . . had better watch your expenses . . . till we have you on the government payroll," she forced out. "Unless you'll . . . let me be debited. A loan, if you wish, till—" She ground to a halt, her cheeks burning with more than the light splintered off the water.

Skip gave her a surprised glance. "What's wrong?" His puzzlement

cleared. "Oh, yes. Male pride. Sure, Yvonne, you keep track and bill me after my first pay crediting."

How will he survive in the Ortho? she mourned. It's not for the light of heart and feet.

He won't, and he doesn't care. When he grows tired of running in the squirrel cage, he'll hop out, accept no more reward of cashew nuts imported, roasted; and salted; he'll merrily go back to his woods where acorns grow for the taking.

I am too conditioned to the cage and the cashews. Nor can I forget that the cage is connected to a shaft which keeps the world turning. If the world stopped, the forest would die.

The ship was warped against its pier. "Get ready to dash," Skip said. He took their suitcases. They had already spoken their farewells and could debark with no more fuss than showing proof of citizenship—credit cards would do—to the machine at the gate.

She dreaded seeing a man from Armstrong or being accosted by a polite official agent. But it didn't happen, perhaps because of the deft way Skip maneuvered them through a warehouse rather than the passenger reception area. When they were on a muni train and it had rolled from the station, she let out a breath and a shaky laugh. "Now I am irredeemably a bad girl," she said.

"We'll make you worse," Skip promised. He consulted a displayed map. "Change at Lomita and we can catch the Harbor Express straight through to Afroville. Uh-huh." Turning to her: "You haven't made clear how long a time you can spend."

"I haven't been clear about it myself," she said in confusion. "I suppose . . . if we take an evening flight to

Denver—"

"This evening? You josh."

"I—really—"

"Well, we'll see how the bones fall."

Skip leaned back.

He obviously plans to tempt me. Do I plan to be tempted?

If we stay over a night or two or three ... separate rooms? If we stay, he'll take for granted that we—we—He won't be angry if I say no. Not him. He could pretend not to remember what I said that night on the fantail, and is still pretending to believe that I believe him. He might be hurt—no, I can explain how the trouble is in me, not him. I can do that much for him.

After I've gone to bed, he may stroll out and find somebody else. But he won't insult me by introducing her next day. Unless—He might not realize it was an insult.

"For a person on an escapade, you're tolerable glum," Skip said. "Smile." He twisted about on the seat, put thumbs at the corners of her mouth, and lifted.

She gasped. He dropped his hands. "I'm sorry," he said.

"No. Nothing. You surprised me." She took the nearest of those hands in her own. Sunlight, smiting through the window, turned the hairs on his knuckles to gold. How tough the palm was! Her words fumbled: "I've been a prickly pear these past few years, but it wasn't intentional, it just happened." *Is that true?*

"A condition to remedy." His free hand cradled her chin. He smiled into her eyes. She wondered in near panic if he would kiss her in this carful of people. He let go after a mement. She did too. "Lomita ahead," he reminded her, and rose.

Their change-train took a cigarette

and a half to arrive. Meanwhile Skip suggested she stick her card in a cash vendor. "They use cash a lot in Afroville," he said. "Why not give me a thousand? Easy sum to recall I owe you, and I can play grand seigneur the rest of the week on that."

"Dare you carry so big an amount on you?" she asked.

He shrugged. What he lost, he'd earn back eventually, he assumed. She gave in. A kilobuck wouldn't damage her account. She drew more than a hundred a year after taxes, and had no one to spend them on but herself.

They boarded the express. It accelerated to a smooth and noiseless 200 KPH. The cityscape reeled hypnotically past. Yvonne lost other sensory awarenesses, staring out.

Why not? My whole body wants to. Oh, it cries to!

The world would goggle and snigger to learn that Yvonne Canter was living with a 22-year-old boy. The world needn't learn. Almeida would make certain her address stayed confidential; probably she'd reside under her alias. He himself wouldn't care, might indulgently smile. The rest who'd know—To hell with them. The very cold hell she had a talent for consigning people to that she disliked.

But did Skip have more in mind than a few days' romp before they reported for duty? He liked her, he admired her intellect, he wanted to paint her portrait—

"Do you feel warm, Yvonne? Want to move over onto the shady side? You look like you're blushing."

From temples to breasts. "No, I'm comfortable."

—in the nude?

Why not a romp, then? What harm could it do? Afterward they could decide. . . . But if the decision was to end the relationship then and there, how much would that hurt, for how long? . . . And if they did go on a while, at last he would grow restless and kiss her and depart whistling some or other tune he'd have been whistling while he painted her, and would that leave her hobbling around the rest of her life on chemical crutches, and if so, would it have been worth it?

Or can't I too be casual? Must I forever work, even at joy?

Or could I make him want to stay, if that turned out to be my dearest wish?

The train glided to a halt. "Watts Towers," Skip said. "Here we are."

They checked their luggage and stepped forth into dazzling light. Behind them, the people's park mushroomed with the amiable eccentricities of its high structures. There must have been twenty, no two alike. A group of youngsters was gleefully at work on yet another.

Before them, palms lined the main street. It was reserved for pedestrians and the wagons of many children; the "sidewalks" were for bicycles. The buildings, all one- or two-story, were each surrounded by a garden. Colors blazed from the walls and the often conical roofs. The functions were wildly mingled—homes, a number of which had their own businesses in a front room, among shops, offices, small manufacturing, restaurants, bars, theaters, a church, a mosque, and more and more. Folk sauntered, laughed and chatted, sat on their porches and plucked guitars, bought roasted ears of corn from a pushcart, stood in their storefronts and chanted the wonders of what they had

to sell. Dashikis, tarbooshes, and lap-laps were less frequent than the *National Geographic* intimated; however, a brand-new style was common, a flowing gauzy cape embroidered like butterfly wings, that Yvonne guessed the entire Western world would soon be copying.

The flower-scented warmth seemed to bake unhappiness out of her. She clapped her hands. "Enchanting!"

"The cliché Afroville," Skip said. "Run by some of the shrewdest people on two feet. Mind you, I don't put this part down. You can find unique stuff here, handicrafts especially, likelier to be honest value than what comes in through your home delivery tube. We may as well wander till lunchtime."

Yvonne had worried about being recognized, but Skip's reassurance was sound. "Nah. The sensation's died of old age. Your picture hasn't been on a screen for two or three weeks. Ninety-nine percent of the population has lousy memory, which is why circumstantial evidence is generally better and fairer than eyewitness testimony. Unless somebody's looking for you specifically, or we chance on somebody who knows you personally, no one will pay attention. You stayed pseudonymous on the *Long Serpent*, didn't you?"

She enjoyed herself in the shops and couldn't resist a snakeskin belt. And the Black History Museum had added a nautical section since she was there last; the Vikings ought to see those juxtaposed models of the bronze-age canoe from Denmark and the medieval ocean-goer from Ghana. Lunch became late.

That was in an offside section, mainly residential. They were the only whites. The restaurant was tiny, on a trellised

patio riotous with bougainvillea, rustling with bamboo, splashing with a fountain that sprang from the uplifted trunk of a stone elephant. A young man sat cross-legged and produced unbelievable flans and paradiddles on his bongo drums. "No entertainment," Skip said. "He feels like it."

The handsome waitress did not surprise Yvonne. You always got live service in Afroville. But then Skip rose and cried, "Why, hello, Clarice! Remember me?"

"Hey, Skip, baby!" They hugged. Nevertheless Yvonne got the impression that, while neither would have had any objections, they had never been lovers. *Maybe I think this because I've read that Afroville has a higher proportion of couples who are formally married, and the marriages average a longer life, than in the Ortho of any Western nation. Or maybe I want to think this.*

"I figured you were in Australia yet, Clarice."

"I was. You've been away longer'n you've counted. Want to swap brags?"

"Sure do." Skip performed introductions, wincing the least bit at "Yolanda Cohen." Yvonne remembered him remarking, "Sigaroons don't lie among themselves as a rule. If I'd rather not tell a friend something, I say so and he accepts." While the food was being prepared, and after Clarice had brought it, she sat down, drank coffee, and conversed.

Yvonne almost regretted being too interested to pay due attention to the meal, which was superb, especially the ham-stuffed Brussels sprouts. *Futhermore*, she thought, *I'm too wistful*. Clarice was not a female equivalent of Skip; her roots in Afroville struck firm and deep. But she had traveled, and not

by careful first-class conveyance—shank's mare, bicycle, motorbike, car, truck, bus, train, chopper when she could wangle it, horse, camel, and once a zebra—from Yukon to Yucatán, Copenhagen to Capetown. Her Australian tour had been in a semi-amateur theatrical group, playing the outback more than the cities. Between jaunts she worked here and studied chemical engineering at the university. "Meant to land a job in a desalination plant," she laughed. "Turns out they prefer employees who don't take my kind of leaves of absence. No harm. We're gettin' more of our own industry all the time. Or maybe I'll teach."

In her absence, Skip said meditatively, "There goes the shape of the future, or I miss my guess. We're not headed into an age of speed and steel. That's already behind us. We'll use its capabilities otherwise. The old Egyptians learned tricks that're still handy to know, but we don't build pyramids any more, do we?"

Yvonne thought of Almeida's fears, and thrust the thought from her, stood up and said, "She makes me hope you're right. Excuse me a few lambshakes. Which way is the ladies?"

A vendor in the room offered Just Before mints, 25 for a new dollar. Yvonne demurred. Then: *Why not? They won't commit me, he needn't know I have them, they'll merely give me the option.* Her coin rattled down the slot. She stuffed the roll into her belt purse and washed her face to cool it.

Clarice suggested the newcomers end their afternoon in a nearby amusement park. They did. Yvonne was slightly upset by a holographic animation in a plastidome labelled "Grandpa's World"—less by the phantom hippies,

protesters, peace marchers, rioters, embattled policemen and college deans, lecturing professors, roaring orators, and the rest of that section, than by the giggles and guffaws of the mostly teen-age visitors. *Youth is cruel. Even Skip?* However, the astronomical division was tasteful; her spirits could not but rise with the great rockets. Back in the open, they found the usual shows and rides and, miracle, an old-time carousel or excellent facsimile, complete with sentimental painted scenes, calliope music, and animal figures to be whirled on.

They had supper in a Mexican restaurant. "Tell you what," Skip said over the last wine, "let's unhock our bags and skite down San Clemente way, junction up in a little beach hotel, start the morning with a swim and maybe go to Catalina."

"All right," she said, more huskily, than intended. "That sounds like fun."

They walked out hand in hand. She knew that if he hailed a taxi and they snogged on the way to Watts Towers, she would share his bed. But that didn't occur to him. His merriment on the shuttlecar suggested to her that she might anyhow.

At summer sunset, the Towers station was moderately crowded. Skip wrinkled his nose. "Too much racket and bustle for me," he said. "Well, the L.A.-San Diego line is pretty good. We can be in our room, window open to the surf, in an hour." He started toward the storage area, not noticing her expression. She followed automatically, her world gyrating. *What did he mean? Anything? Everything? What should I say?*

Skip opened their locker and took the suitcases out. A man who had been

seated on a bench approached them. Quietly dressed, he was an unobtrusive man unless you took heed of his lithe gait and hard features. "Dr. Canter?" he said. "How do you do? Excuse me, please. I'm Gerald Lasswell of the United States Secret Service." He showed her an identification card and returned it to his folder.

She stood wondering numbly why she felt so very numb.

"What's this about?" Skip demanded, annoyed.

"Are you with Dr. Canter, sir?" Lasswell asked. Skip nodded. Lasswell quirked lips in a tight brief smile. "We had two men to meet you in port," he said at Yvonne, "but somehow they missed you. Admiral Granstad told us you'd spoken of touring in this area. Our best chance seemed to be to post a man at every station. We have searchers out too." Roughly: "It's that important. Thank God you're safe."

"Suppose you tell us what the matter is," Skip snapped.

Lasswell shook his head. "Not in a public place, sir. Would you both come along to the office? The chief will explain."

Yvonne looked at Skip. "Should I?" she heard her voice ask.

"I can't force you, short of non-criminal arrest," Lasswell said. "Wouldn't you agree, though, Dr. Canter, neither my service nor Colonel Almeida is given to hysterics? You were nearly murdered. Now we have more information. I've sat here since morning and sweated blood."

She nodded. Skip swore and picked up the suitcases. "This way, please," Lasswell said. "My relief has our car parked near here."

It was a Neptune with a civilian

number, inconspicuous among a million similar teardrops. The man who scrambled forth was clad like Lasswell but a good deal tougher-looking. "You got 'em!" he cawed.

"Hurry," Lasswell said. "Rear seat, please, Dr. Canter and sir."

He and his companion took the front. "Let me," Skip said, and leaned over to fasten her safety harness. His breath tickled her ear. "Too bad," he whispered. "'Nother time."

Pilot set, the car hummed into motion. "Better we opaque the windows," Lasswell said, and did.

"Hoy!" Skip exclaimed suddenly. He pointed to a twisted, leathery object suction-clamped on the dashboard. "What's a juju doing in a Secret Service whirr?"

"I can tell you that," Lasswell replied.

He unsnapped his harness and turned around. From beneath his tunic he had drawn a flat gun. Skip snarled and grabbed under his own garments while snatching at his buckle. The gun hissed. Skip jerked, made a rattling noise, rolled back his eyes, and slumped. Horror took Yvonne in a tidal wave. She screamed. The second needle pricked her in the stomach. A jab of cold radiated to hands and feet and head. The wave became a maelstrom and sucked her down into night.

XI

SKIP WOKE SLOWLY. Pavement was hard beneath him. His head ached and his mouth tasted foul. The background noise of traffic hurt. He groped through bewilderment. What'd happened? A monumental drunk, a fight, or —Memory slammed back. He sat up with half

a yell, half a groan. Lamplight filtered dully around huge pillars whose shadows swamped him. He'd been tucked out of sight beneath an elevated section of railroad.

"Yvonne?" he called weakly. "Yvonne?"

No answer. He climbed to his feet. Dizziness swept through and almost felled him. He stood swaying till it passed, then stumbled out onto the street which crossed under the el. It lay deserted in the dark, warehouses and factories. "Yvonne!" he shouted.

Physical strength and steadiness began returning. Though he had no watch, he recalled that a knockout shot generally put you to sleep for about an hour. He went back behind the pillars, on either side of the street, and hunted for his friend. She wasn't there, of course. The kidnappers only wanted her. They took him for a mere escort and dumped him at the first opportune place, not wishing to be bothered with an extra prisoner.

Get help. Call the police, no, better the FBI.

He started down the sidewalk at random, first shuffling, later striding, finally running as his body threw off the last effects of the drug. The exercise cleared his mind. He found himself thinking with a speed and precision that raised faint surprise at the rear of his brain.

If the object of the game had been to murder Yvonne, like last time, they could have done it, to both, when they stopped to leave him off. A bullet, a slashed throat, a full eight or ten needles, no problem. Therefore they wanted her alive, at any rate until she'd been quizzed by—whoever hired them. For they were obviously local Under-

worlders, topnotch professionals, who knew the scene and had the organization. He might well have that to thank for his life. Mercenaries didn't take the risk of committing murder unless forced by circumstances or unless it was part of the job. In the latter case, the price went high. Having been told to net Yvonne Canter, they had done exactly that.

They must be mighty damned confident of their ability to keep her out of sight, to let Skip give early notice. They must have foreseen what hounds would be baying after them. . . . Well, did a few hours make any difference? On agreeing to the San Clemente jaunt, Yvonne had said she must call Armstrong and tell them she was okay, or there'd be a general alarm out before sunrise.

And why should the kidnappers not be confident? They had the whole megapolis to choose a lair from. Their operation had been so smooth in every respect, they wouldn't have overlooked the details of concealment.

Smooth as a glass ramp going down into hell. The thought was anguish. His feet thudded, the air tore in and out of him, gray walls and locked doors fell past, and no other life stirred, no lighted window appeared; save for the sky-glow above and the machine throb around, he might have been the last living creature on Earth.

Knowing the sea gypsies were about due in, a man could find the exact time by calling the harbormaster's office. Shadows would be waiting, who would not overlook the possibility that their quarry might leave by an odd route. Unsuspecting, untrained in such matters, Skip and Yvonne would be child's play to follow. In fact, once they'd

checked their luggage, they might not have been followed at all. It would be ample to post a watcher at the station.

Secret Service disguise . . . yes, a distinct touch. FBI or military intelligence credentials were risky to fake, since Yvonne would often have seen them; her escort might be equally familiar with local police badges and style; but how many people ever had anything to do with the Secret Service?

Who were those men working for? Why kidnap this time, instead of kill? How had they known she was on Ormen?

An auto purred by. Skip shouted and waved. The man inside was watching television and didn't notice. However, more cars moved on a cross street ahead. This nightmare race must be near an end. Halting at the corner, lungs pumping like bellows, spleen aching, mouth and throat dry, skin drenched and stinking, Skip looked around. Neon signs, a cluster of shops and bars, that way!

As he entered a drugstore, fear smote him. He clutched frantically in his pockets. The money was there. His enemies hadn't even considered him worth robbing.

Well, they're right. Tears stung his eyes. It's my fault. I talked her into visiting Maury—someone must've passed the news in spite of Hightower's request—and I knew in my vast wisdom that she had nothing to fear in this town. If they destroy her, the blood is forever on my hands.

He located a phone booth and punched for FBI, LA HQ. The screen replicated a man's face. "Federal Bureau of Investigation. William Sleight speaking. May I help you?"

"Better record this," Skip said.

"We routinely do, sir." Impassive, the man kept a disconcertingly steady stare. *I must look wild to him, dusty, sweaty, unkempt.* Skip gathered breath. In a rush of words, while he clenched his fists against the pain of it, he told the story.

Sleight flung questions. At the end, he said, "We'll get right on it. Stay put. We'll send a car. Where are you?"

"You need me? I mean, I'm not inventing this, and I've, I've told you what I know."

"You bet we want you, mister." Sleight had now acquired an expression, as bleak as any Skip had ever seen. "Quick, where are you?" On being told, he nodded, a single downward jerk like an eagle stripping a bone. "Wait inside. At the newsstand. Won't be more than ten minutes." The screen blanked.

Skip left the booth. *You're wrong, buck, he thought. It'll be a lot more. They'll lock me up and melt the key.*

Or can they? I'm not guilty of anything, am I? . . . Like spit I'm not. . . . Legally guilty, that is. I'm simply a material witness. They can't hold me indefinitely. Can they?

They'll keep me too damn long at best. The vision of walls and warders made him ill. *When I might be doing something to help.*

What might you do, fat boy?

He took a magazine and leafed through it, as a way to occupy hands and eyes. In the immensity of his loneliness, the counters, the clerks, the few customers, the faintly sweet odors, the background music, were unreal, unreachable.

A title appeared, "The Sigman and the Nations." His glance plodded over the page. The author claimed that the governments of Earth were being crim-

inally lax in not making definite, firm advance arrangements for the Peace Authority to control whatever new knowledge and fantastic new technology ought to rush over man when communication with the being from the stars was finally established. Failing this accord, the several delicate equilibriums on which civilization today depended for its survival could be upset. For instance, the Authority's powers of inspection and arrest were confined to certain classes of armaments. The rest were not prohibited, and only a few international regulations—anti-pollution, schedule notification, mutual aid in distress, et cetera—covered spacecraft. But a photon-drive ship was potentially an irresistible weapon. If a great power succeeded in building such a vessel for exclusive use, its rivals would practically be forced to denounce the ban on nuclear warheads, openly or clandestinely; and you didn't need an intercontinental rocket to annihilate a city, you could smuggle your bomb in piecemeal—

Skip raised his head and stared before him. *Sure, he realized. That's what this thing tonight is about.*

The Underworld scarcely had a line into Maury. Yet a scientist could be a spy for a government; that had happened often enough in the past. Though Maury did nothing secret, it would be an excellent *pied-à-terre* for an agent assigned to ingratiate himself with men of different nationalities whose work elsewhere did have military significance. He'd sound them out, collecting scraps of information which, fitted together, might at last reveal a hidden truth.

Suppose the Russians, the Chinese, whoever they were—call them X—sup-

pose they'd decided a while back to try getting the jump on others in the Sigman business. Since it wasn't obvious how they could, or whether they could, they'd improvise as they went along. Such absence of doctrine always seemed to open the way for extremists to take charge. When Yvonne made the first crack in the language barrier, she'd revealed herself as the best American on the project. Word must have gone out: "Eliminate her before she develops capabilities that we may not be told about."

Nobody had reason to maintain an expensive and risky organization of his own for work like burglaries and murders, anyhow not in the West. The Underworld was available. You'd hire your assassin deviously—yeah, doubtless tell his ultimate boss that you wanted this research stopped because it was dangerous or blasphemous or Communist or whatever—

Yvonne escaped, and the US government spirited her away. In the secret councils of Country X, they doubtless wondered if that was strictly for a rest cure. Or if it was, mightn't she have a fresh inspiration during her holiday? So . . . kidnap her if possible and wring out what she knew before disposing of her existence. When X's agent in Maury saw Yvonne and learned where she would debark, he must have sneaked a phone call to his American contact. (Maybe he himself didn't suspect his masters were after her. His job could simply be to inform them of everything interesting that came to his attention.) X's local man was notified in turn, and promptly hired men from the Angeleno torpedo guild, and the rest followed.

Skip flinched. The inevitability was crushing. In an hour under babble juice,

quizzed by a skilled operator, Yvonne would pass on the whole of what she and he had developed. The operator would curse that his superiors hadn't thought to instruct that any companion of hers be included in the package. *They'll try for me. But I'll be safely in jail.* She would be useless, yes, hazardous to keep. The operator would turn her back to the professionals for elimination.

They might well amuse themselves with her a while before they let her die.

Unless she's dead already—No, I musn't think that. And they, X, must need time to prepare. They got short notice and they can't have a big, permanently alerted, Underworld-style outfit in this country. I imagine their quizmaster'll have to be flown here from home. And smuggling him in is taking an unnecessary chance, so a cover must first be arranged for him. And matters will have to be fixed at this end so the torpedoes won't guess who they've really been working for.

Still, a day or two at most. And the FBI must have leads to the Underworld, but the Feds are limited in what they can do and they've got this whole monster of a supercity to cover—

Skip dropped the magazine. *Judas on a stick! I can do things!*

A mature man would have stayed and offered his advice and services to the authorities. But that would take hours, at the end of which his idea might be dismissed. Besides, Skip had never claimed to be mature. A wall clock said his ten minutes were nearly gone. He left the store in a rush. "Hey, taxi!" Only later did it occur to him that he should have called in and reported his theory about the Sigman, lest it die in America with him and Yvonne.

The One of the Los Angeles area was male and called himself Elohath. His dwelling was in a slum district and from the outside seemed to be another rotting centenarian of a house, grotesquely turreted, bayed, scrimshawed, and scaly-shingled, in a yard rank with weeds and trash. Skip dismissed his cab two blocks away and proceeded on foot. Nobody else seemed to be abroad. What windows were lighted had the blinds drawn; none could be opaqued. Infrequent, antiquated incandescent street lamps stood goblin-like in puddles of dingy luminance. Above the background mutter of megalopolis, a palm tree rubbed fronds together in the rapidly chilling breeze, a skeletal sound. Sheets of paper scrittled across the walk. A cat slunk under a hedge reverting to brush.

Skip mounted the porch and pressed the doorbell, a further anachronism. He hoped he wouldn't be left here long, among ugly pillars silhouetted against a dull red sky-glow. *Brrrr!* sounded through the heavy old door. *Brrrr! Brrrr!*

It opened. A woman in a black robe, who would have been good-looking if less hard-faced and if every hair had not been removed from her head, asked, "What is your desire?"

"I have to see the One," Skip answered. "Right away. No, I don't have an appointment. It's terribly urgent, though."

She considered. Elohath must get scores of callers a year who were weird even by his lights. Skip tried to look his youngest and most clean-cut. "Come in, please, and we will discuss it," she said at length.

When the door had closed behind him, Skip was in richness. Drapes of purple velvet screened the rooms that

gave on the dark-paneled corridor down which he was guided. Bulbs in ornate, seven-branched brackets provided dim vision. The black rug deadened sound, so thick and soft that it felt alive beneath his feet. From somewhere, just audible, wailed a minor-key chant.

Reaching an antechamber, the woman took a seat behind a huge desk. Phone and intercom were housed in a case carved with demonic faces, on top of which rested a human skull. Walls and ceiling were hung with red and black cloth. The floor was as luxuriously covered as in the hallway. A slightly bitter incense swirled from a brazier. Above an inner door was a Tetragrammaton.

Elohath's a better than average charlatan, Skip reflected. But then, he'd better be. He isn't fleeing ordinary sheep. (How did it happen, superstition making the comeback it's done? Already in Dad's childhood, educated people were solemnly using astrology. Could science maybe be too demanding?—Anyway, in superstitiousness I suppose the criminal classes have always taken first prize.) Among Elohath's clientele are the barons of the Angeleno Underworld. If they ever stopped fearing him, he'd be done; he knows too much.

"Be seated." The woman pointed to a chair. Skip obeyed. She took a printed form from a drawer. "I'll need certain information before I can decide whether to disturb the One on your account. Last night he had to raise a dead man, and frankly, that leaves him tired for days afterward."

"He's met me," Skip said. "Bats Bleadon was showing me around a couple years ago. We attended a séance here and I was introduced. The One

very kindly had an acolyte give me a tour of the unforbidden parts of the mansion."

"Indeed?" Her bleached-white countenance registered more interest. "That was before my time. May I have your name?"

Skip gave it. She punched for the data file; Elo hath was not above using electronic storage and retrieval. Reading the screen, she nodded. "Ah, yes. Mr. Bleadon spoke highly of you. Why haven't you been around since?"

"I left town for, hm, various reasons. Didn't come back till yesterday." Skip was not playacting the desperation in his voice: "Please, Darkangel! I've got to see the One right away! The business could touch him as well as Bats— No, I can't tell you what. You don't want to know, believe me, Darkangel. Look, if he gets mad, he can take it out on me, not you."

"I shall inquire," she said, and pushed the intercom switch. After a short conversation, she finished, "My thanks to my Lord," cut circuit, and told Skip: "You may enter in seven minutes. Meanwhile be silent and compose your thoughts."

How'm I gonna do that last? The woman stared blank-eyed before her. Elo hath's secretaries got rigorous training, all right. As for the boss, he'd doubtless been relaxing in his private quarters—not necessarily—with a succubus or an occult tome; why not the Downey Clown Show, if he's alone?— and needed time to put his costume back on.

A husky shavepate whose robe wouldn't hamper him in a fight entered when the secretary rang. "You realize weapons may not be borne in the sanctum," he said. "Please stand and hold

out your arms." He patted Skip efficiently. "Very well. Thank you."

If he'd discovered the fang, Skip would have been in deep trouble. But it was inside an elastic waistband which forced it to match the curvature of the wearer's body. The slight extra bulge and hardness were scarcely detectable against his muscular abdomen.

"Remember to halt three paces from the throne, bow three times with thumbs crossed on breast, and wait to speak until you are spoken to," the secretary said while the guard demonstrated. "You may go in now."

Skip's pulse racketed in his ears. The sweat was chill where it trickled from armpits down ribs. His tongue felt like a block of wood. Somehow he opened the door, walked through, and closed it behind him. Its massiveness and the hiss when it settled back in the frame bespoke soundproofing.

Alone in a short, gloomy corridor, he unsnapped the pocket in his waistband and drew out the fang. It was a thin, slowly straightening brown ribbon, 30 centimeters long, four centimeters wide, two millimeters thick. He rapped it sharply against a shoe. Jarred, the plastic sprang back to the original shape it "remembered." He felt an instant's expansion and snaky writhing, and held a knife with a ten-centimeter blade. The inset edge and point, around which the ribbon had been folded, gleamed razor-keen.

Restoring the former configuration would take longer. He'd heat the plastic till its present rigidity became softness, force it into a "mold" he carried in his pack, and restow it. Otherwise, unconstrained, it would soon become a knife again. His slap had merely hastened that. For the present, he tucked it be-

tween pants and underwear, letting his tunic fall concealingly over. The whole job had taken a few seconds. In a pinch he could do it much faster.

Sometimes he wondered how long it would be until the idea was blown or re-invented and spread. Meanwhile, Hank Sunshine who made the things gave them only to sigaroons he trusted.

Feeling a little more self-confident, Skip went on down the hall and through the door to the room beyond.

It was in the same style as the antechamber, but huge in extent and height. The windows were draped; shadows dwelt thick between the few wan lights. Shelves of musty leather-bound books dominated two walls, a rack of magical and alchemical apparatus a third. Showcases holding curious objects—he noticed a thighbone, a caul, and a mummified fetus among them—flanked the entrance. A crimson carpet laid over the black marked his way to the throne.

He trod the path, which seemed to stretch on and on, and made his obeisance. "By our Father God, our Mother Ashtoreth, and the legions of the Otherworld: my son, be welcome," said the rustling voice above him. "Peace upon those who come hither in reverence. Speak freely and unafraid, save that you must be brief, for you are not the single troubled soul who has need of my succor."

Skip looked up. Elohath seemed tall in his midnight robe. Its cowl surrounded a face white as the woman's, gaunt as this house. About his neck hung the ancient fig symbol. The cross on the rosary at his waist had a crescent for arms. In his right hand, like a scepter, he held a crooked staff.

Suddenly Skip lost nervousness. He

saw, heard, smelled, felt more sharply than he could remember from aforetime. His thoughts sprang forward in disciplined ranks. Underneath was a rage so driving, so powerful that it was as if a demon had truly possessed him.

"Lord," he began, "what I've got to tell is . . . well, you better read my mind or you'll call me a liar."

"Let me first hear you, my son."

"But—pardon me, Lord, but do make sure nobody is listening, like on an intercom. We can't trust—Well, what I'm here about is trouble with the heavies. The Feds."

"The government knows me as a licensed minister and counsellor." Elohath's tone had gone a shade less calm. The fraudulence of years was too strong for him not to add: "If I told you the names of certain clients—Proceed."

Yeh, yeh, yeh, giped at the back of Skip's head. And you give your well-paid advice after you've read the future in the stars or an inkpool or your navel or wherever; you cast spells; you exercise clairvoyance; you sell amulets, charms, philtres; you bless, you curse, you put on a damnably good show; you must've mastered every trick that every magician, illusionist, fortune teller, medium, telepath, you-name-it has ever worked out for spooking his fellow men into awe and generosity.

Most of him was gauging distance and layout. The chamber might be continuously monitored by guards—but probably not, for many secrets were confided to the One and a guard might be bribeable or kidnappable. Elohath would have an alarm button in the chair or someplace. However, since his visitors were supposed to be unarmed and he had that heavy staff and perhaps a gun, he wouldn't really be worried about

assault—not that those who came to this Endor, in fear or greed or hatred or grief, would dare offend the summoner of angels, fiends, ghosts . . .

He was leaning forward, tense, free hand on a knee. No better chance to take him was likely to come.

Skip made the distance in two jumps. On the second, he twisted in midair. His left foot preceded him, a karate kick to the solar plexus. The throne went over backward with a rug-muffled thud. Skip hit the dais and rolled to the floor. He bounced directly up, drew his knife, and sprang to his victim. The One lay limp. *Hey, the old bastard's not dead, is he?* Skip's dismay was at the chance that his sole line to Yvonne would be cut. No, breath wheezed, Eloath was just stunned. Skip straightened the throne. In case somebody looked in, that'd be an item less to explain away. He carried the other to a couch in the farthest, darkest corner of the room, laid him down, and checked for weapons. None; this fellow *was* well in the saddle.

The One stirred and groaned. "Okay, chum, come out of it," Skip said. He slapped a cheek. Eloath's eyelids fluttered. He clutched his belly and retched. Skip showed him the blade. "I want information, you. I want it fast and I want it accurate."

"What—" Eloath struggled to a sitting position. He began tracing signs and mouthing noises.

Skip slapped him again. "Save your show. Maybe you've cursed a few people to their doom because they believed in it and wasted away. I'm not about to. Listen. If we're interrupted, you tell the person we're in conference and he's to leave us be. At the first sign of anything I can't handle, I'll kill you. To make that plausible, let me point out

that I'll have nothing to lose. I know quite well what your goons would do to me. So after your heart's skewered, mine comes next. Cooperate and you won't be hurt."

"What do you want?" Eloath whispered.

Skip related the kidnapping, not only describing the two operatives but exhibiting drawings he had made en route in his ever-present notepad. "I know your system," he finished. "Besides the usual hokum, it depends on an intelligence network most professional spies would envy. Clients tell you things; you keep runners out, observers, snoopers, collators, information exchange with colleagues elsewhere. The heavies would give their left kidneys to know what you know, which is why you're careful never to lend them an excuse for arresting you."

"I . . . am . . . a law-abiding citizen. You—"

"I am a felon of the worst kind," Skip said, more cheerfully than he felt. "I want to learn where these two horns are, who they're affiliated with, where they're probably denned, any alternative spots, what kind of guards and other security they may have—the whole shebang, Eloath."

"Privileged information," the One said. He had his wind back, and his cunning and ratlike courage.

"Yeah, you'll be shot slowly if it's ever found out you betrayed a client. It doesn't have to be found out, if we arrange this right. You'll for sure be dead if you don't talk to me. Now!"

"No! Azrael, destroy him! Semphoragas, ya lamiel—" The invocation was cut off by an arm around the throat.

Skip hated the next few minutes. That what he was doing left no marks

made it somehow worse. Only the thought of Yvonne in captivity kept him active. Eloath was getting on in years, physically not strong. He broke. "Yes, yes, I'll talk, damn you, you devil, damn you—"

"Begin," Skip said into the sobbing.

By the time Eloath had spoken what he recalled offhand, he had recovered sufficiently to use the intercom. A considerable file was duplicated at his best on the ReaderFax behind a screen. "We'll want to protect you," Skip said after going through it, "so you'll have a motive for not blowing the whistle on me. Is yonder phone a relay job?"

Eloath nodded miserably. Skip had expected as much. Elsewhere in the city was an instrument through which messages to and from this one traveled. A continuously operating scanner would reveal if strangers came into that distant room after having presumably traced a call. The connection to here would immediately be broken and a new line arranged for.

Skip made his prisoner lie on the floor, under his foot, and rang up the FBI. Sleight was still at the desk. "You!" he exploded. "What—"

"I think I've found where Dr. Canter is," Skip said brusquely. He gave names, addresses, and pertinent details. "That's in order of likelihood. I'd suggest sleep-gas bombs before the men go in, but you know more about that than I do. And blood of Christ, man, hurry!"

"Where do you get this stuff?" Sleight demanded. "How do we know you're telling the truth?"

"Dare you assume I'm not? I'll call back in an hour." Skip cut circuit and released the One.

"We can spend the time planning," he said. "You see, if I told them how

I came by my information, I'd be confessing to a serious crime. I might get probation, but the whole thing'd be tedious and messy, I'd have a bad mark on my record, I'd be denied clearance to work with Dr. Canter—you can write the scenario yourself. Therefore you and I have the same interest in kitty-littering the truth."

Eloath stared long at him. "You're as sharp as you're tough," he murmured. "If you're ever interested in a job—"

"*¿Quien sabe?* Far's that goes, you rascal, if I can ever do you a favor that's not too flinkin' unethical, you might ask. Now let's concoct."

Between Skip's imagination and the One's knowledge, a tale was worked out that ought to serve. Skip had sought former Underworld acquaintances in the hope of getting a lead. Among them was a man who, by sheer good fortune, happened to be a disgruntled, recently expelled member of the same mercenary outfit that had snatched Yvonne. (He was real, well-known to the police. Nothing except the fact that, three nights earlier, he had gone down the garbage grinder of a rival, need be withheld.) Skip had drawn him out, aided by his natural resentment and a large supply of pot.

After this was settled, Eloath and guest chatted, not entirely unamicably. Beneath his lightness, Skip's tension approached breaking point. It was with shaking fingers that he punched the FBI number at hour's end.

"Yes, we have her," Sleight said. "Locked in a room at the first house you listed, scared and shocked but otherwise unharmed. Unfortunately, the men we took with her don't seem to have known more than that they were supposed to stand by for further orders.

A couple escaped. They were in the rear of the house, with access to a tunnel our boys found afterward. Hence no point in trying to set a trap. *Now* will you come here?"

"I'm on my way." Skip switched off and spent a while breathing. Finally: "I'm sorry to inconvenience you further, old boy. However, you realize I must protect my line of retreat."

"Certainly," Eloath pressed the intercom. "Darkangel Zaaphyra, Mr. Wayburn is leaving. I want to be left strictly alone, to meditate upon his news." Skip bound him with strips cut from the curtains, in a set of ties that an escape artist would take about half an hour to work free of. It wouldn't do for a One to be found trussed like a hog. Having gagged him, Skip patted him on the head and departed.

"Be seated, Comrade Professor," General Chou said. Wang Li took the chair at which the cigarette pointed. There followed a minute's quiet. Finally from behind a veil of smoke, Chou stated:

"You should-know, because she may mention it to you, a second attempt has been made on Yvonne Canter."

"No!" A part of Wang observed that he sounded almost as appalled as he was. "I have not heard—"

"You would not have. The American authorities are suppressing the facts, thus far at any rate. We know because we have agents among them: which is not a wicked thing, Comrade Professor, when they would like to do the same to us and have, possibly succeeded."

"I understand," Wang said low. "Was she hurt?"

"No. This was a kidnapping, by hired criminals. The fascist police recovered

her and took a few prisoners who knew nothing of value. Apart from this: that in her fright and confusion she had babbled to them about a fresh concept of the Sigman, something which would open the way to a real alliance. She evidently hoped they would free her on that account. Upon seeing their indifference, she spoke no further."

"Who can have been responsible?" Wang made himself ask.

"Who knows?" Chou replied. "The Soviets, the Japanese, the West Europeans—or it could have been engineered by the American regime itself, hiring real gangsters but meaning to sacrifice them in a show for the purpose of frightening her into total conformity." He leaned across his desk. "Consider this, Professor Wang. The incident occurred days ago. Dr. Canter must have recovered and told her great idea to her superiors. Every discovery about the Sigman is supposed to be promptly shared. We have received no word about this latest. What does that indicate to you?"

"They may be unsure," Wang faltered. "They may have decided she was mistaken."

"Or they may be stealing a march on us," Chou snapped. "We are preparing against that. I called you here in order that you shall, for every contingency we can imagine, know what is your duty."

XII

TO HIS SURPRISE, Skip found Andrew Almeida a likeable man, generally relaxed and easy-going, talkative but a good listener, holder of a master's degree in history, sensitive appreciator of the arts, head of a charming family whose hospitality was large and un-

feigned on weekends in their mountain cabin.

That was about the sole leisure Skip got. For the rest, he had a room on base, and when he wasn't conferring he was being trained. He must learn the results of three years of Sigman studies, get them into his bones, for if his scheme worked there was no predicting what the creature would do and his reaction in turn ought not to be blind. Well, that was whoopee by him. He didn't even mind the celibacy, much. When he was taken into Earth orbit to learn the rudiments of free-fall coordination—when he saw, no simulacrum between walls, the Mother Herself before his eyes, shining among the stars—it was the lordliest hour of his life thus far.

Meanwhile the FBI must be trying to check out his past. He leered and wished them joy. Yvonne's influence had gotten him a temporary clearance which sufficed.

After a month, Almeida's final briefing came as a blow.

He sat behind the desk in his office, Skip and Yvonne in chairs facing him. A window stood open to cool air, to rumble and bustle, to buildings across the way and beyond them a glimpse of the steeple-like rocket which tomorrow dawn would lift on flame and pierce blue heaven.

Almeida stuffed his pipe. "I wish we could have spent more time preparing for this mission," he said.

Yvonne drew on a cigarette. Though she looked tense and jittery, Skip admired the aquiline profile, tilted eyes, lustrous hair, figure damn good, really, beneath her severe business dress, in a lean long-legged fashion. . . . "We're about as ready as we can be," she said. "If we dawdle, the Sigman may leave

on a new junket, or for home."

"Right," the colonel agreed. "Or somebody may independently come on Skip's notion."

Yvonne straightened in her chair. "Andy," she said, "I don't like the way we've been hugging the concept to us. Among other reasons, I want to discuss it with my foreign associates, Duclos in particular. He's bound to have valuable thoughts, being a connoisseur in private life. I obeyed you hitherto because we were busy explaining and laying detailed plans. But I don't want to keep silence any longer."

Skip tugged an earlobe. "Uh, I figured the secrecy wasn't too bad a notion, Yvonne," he ventured. "After what happened to you and— Shouldn't we have stopped to think before bulling ahead on something this important? If we were wrong, we've only stalled progress a month. Because how can we hide our doings after we've gone aboard?"

"That," said Almeida, "is what I aim to discuss today."

His lighter popped into flame, an unexpectedly loud noise. Yvonne started. Skip touched a hand to the fang he had not seen fit to mention here either.

Almeida developed a good head of steam before he leaned elbows on desk and said with unwonted gravity: "We've informed the appropriate agencies abroad that we're sending a boat there tomorrow. They keep radar surveillance the same as us. But we've claimed it's a routine check on the outer fringes of the Sigman's forcefield, to see if there've been any changes. There never have been, you know, but it's sensible to re-investigate periodically; and the maneuvers are good practice for astronauts. Nobody else cared to

come along, as we expected.

"You will orbit close and transmit your program on the original Sigman waveband, holding power too low for detection more than a few kilometers off. That way, if you get a response, the fact can be kept confidential."

"Huh?" Skip exclaimed. "Now wait just one mucking minute."

Almeida lifted a hand. "You needn't tell me. A dirty trick, a violation of solemn covenants. But suppose the Sigman's response is a complete set of plans for its ship. Not fantastic. We're obviously a race interested in technology. Or something less foreseeable may happen." The hand became a fist and smote the desktop. "*We don't know.* And we don't have solid, enforceable international agreements concerning these things. You needn't blame Chinese intransigence or American paranoia or whatever your pet whipping boy is. Simply consider the problem in preparing for events that can't really be imagined, let alone predicted. And the more players there are in a game, the less stable the game becomes."

He sighed. "Maybe, if you establish meaningful communication, you should ask the Sigman to go away till the human race has grown up," he said. "Or maybe, and I hope this is most likely, the knowledge will prove safe enough, introduced gradually enough, that we can return to wide-open operations. For the present, however, we fight a delaying action."

Yvonne's lips trembled. She dabbed at her eyes.

"What if the Sigman invites us to tea?" Skip asked. "We've been kind of assuming it'll do so, if our scheme works. Manned satellites are always watching for the rainbow comeon."

"Maybe you can somehow make it omit the signal," Almeida suggested. "Or, having boarded, maybe you can persuade it to close the forcefield again. In such a case, we'll fob off indignant protests by claiming that evidently a misunderstanding occurred. . . . Responsibility doesn't rest entirely on your shoulders. Your pilot and co-pilot were carefully picked. Major Thewlis has had combat experience—the Rock incident, for example. Captain Kurland is with Air Force intelligence. Let me make plain the ground rules under which you'll operate."

Skip was lost in contemplation of the spacecraft. That gladsome dance of mass and shape, where sun and shadow lilted, was like Earth afloat in the universe, like music, like love and adventure and creating—you could only experience it by experiencing it. The words of the finest writers, the pictures of the finest holographic photographers, had never suggested what sacredness was here.

This spearhead, that curve, yonder spiral, yes, I see how they flow together to make oneness and rise back renewed.

Kurland tapped him on the shoulder. "We're in orbit, Mr. Wayburn."

Jarred from his trance, Skip bounced against his harness. The cabin crowded him with instruments, the air smelled stale, a pump was whickering, weightlessness was pleasant but he knew how it would hamper his unskilled muscles, the window through which he had gazed was small and smeared. "Oh. Oh, yeah," he mumbled stupidly.

"Can you get busy right away?" Thewlis asked.

"Yes, of course." Yvonne began unfastening.

"Remember," Kurland told Skip,

"from time to time we'll have to snort, correcting for drift, if we want to maintain our relative position. Won't be more than a tenth of a gee at the outside, and we'll warn you in advance."

Skip's nod was impatient. Returned to full awareness, he was ablaze with his mission. If it was victorious, what glories might he not see! Releasing himself, he bobbed across the cabin toward the visiphone transmitter, where he clipped on a tether and started unpacking the objects brought along.

Yvonne helped. Her voice was troubled: "I could almost wish we draw blank." She tossed her head. "No, I don't!"

"If we do," Skip said needlessly, "we'll keep trying."

"How do you know the Sigman receiver is on?" Kurland asked behind him.

"We don't," Thewlis said. "But wouldn't you leave yours on, recording, and check the tapes at intervals?"

"My guess is, a monitoring gadget is set to holler when something comes in that looks like pay dirt," Skip said. "Oops! Damn!" A wad of cotton, padding for a bowl, escaped him.

Thewlis fielded it. "I still don't understand what basis you picked your specimens on," he remarked.

"Guesswork, mostly," Skip confessed. "We needed a wide variety. However, since this boat can't carry a British Museumful, we made low bulkiness one criterion. And we chose the majority of exhibits from what we thought was likeliest to appeal. I can't explain our method. We'd try to abstract Sigman conventions from what humans have seen of the ship, and reason from there. Speaking honest, though: it was a lot

more hunch and intuition than logic."

"Mostly Skip's," Yvonne added. "That's how I got him cleared. Checkered background or no, I said, who else had a better chance of succeeding?"

An hour later, the duplicated masterpieces racked in order, the script of the show clipboarded before them, he and she looked at each other and clasped hands. He saw how the pulse fluttered in her throat. His own mouth was dry. *Quick, what can I say at this historic moment? The Eagle has laid an egg—No, hell, let's just slog ahead.* He activated the visual scanner. Yvonne began to speak on the synthesizer.

"Humans . . . approach . . . Sigman. Humans . . . approach . . . Sigman. Human-Sigman. Human-Sigman." Presently she nodded to Skip. The screen before them remained blank, but he lifted the first of his choices, a Mondrian pattern. He didn't think the alien would find its subtle simplicity more than mildly interesting, but it could lead the way to photographs of a Japanese torii gate, Chinese calligraphy—

—Dürer, Michelangelo, Velasquez, Rembrandt, Corot, Motonobu, Lung-Mien, Persian miniatures and Lascaux bison whose creators were forgotten but never, never the work—

—the curve of a Hindu cup or a Grecian vase, the virility of a Polynesian war club or an African mask, the sinister grace of an Aztec skull carved in crystal, the serene charm of a Russian icon carved in wood—

—pictures of larger sculptures, Nefertiti's head, Aphrodite and Nike, but here chiefly the more recent masters, Rodin, Brancusi, Milles, Nielsen—of parks and gardens—of the noblest and the most charming houses men had raised, temples, palaces, cottages,

bowers, castles, tombs—

For this had been the artist's insight: that the traveler had made its lonely pilgrimage because it too was an artist, in search of nothing less than beauty.

"Hey!" shouted Thewlis. "It's lit! Like a goddam Christmas tree!"

Skip twisted wildly about. From his post he could glimpse an edge of the Sigman vessel, kilometers distant. No longer did the space between look empty. It flamed with colors, all colors, from the deep pure fluorescences to the softest tints a sunrise or a flower might blend, whirling and flickering and twining, till it was as if the watcher became part of their ecstasy and went beyond this whole cosmos.

Kurland's voice drew him back: "Jee-zus, but you got through. The invitation's never been half that bright or lively before, am I right?"

"You are," said Thewlis. Hushed: "They haven't made words for this."

"Maybe the Sigmans have," Kurland said out of the same wonder.

Yvonne broke into tears.

Thewlis shook himself and turned from the spectacle. "Well, our hope of maintaining complete secrecy always was faint," he said tonelessly. "The big thing is, we've made contact—you two have—and now we go by Plan Charlie." He unbuckled. "I'll help you load your stuff. We can stick those things right in the rack and tow them over, correct?"

"I'll break out the spacesuits and gear," Kurland stated.

The auroral marvel outside was lost in a scramble of preparation.

"Okay," Thewlis said before closing his faceplate. "Let's review procedure a final time. We'll stand by as usual.

Once aboard, you do what seems best. If you possibly can, get the Sigman to shut the entryway behind you. Then spend the rest of your time there convincing it to communicate only with Americans. I know what a tall order that is, especially when you've got perhaps 30 hours before the foreign ships start arriving."

"Maybe less," Kurland said. "We know they've kept standbys on about one-day countdowns since you brought the big news, Dr. Canter. But somebody could have a surprise in reserve."

Yvonne winced. "I'll be so embarrassed, so ashamed, if—"

Kurland clapped her on the armored shoulder. The force drove her a ways from him. "Have you forgotten your cover story?" he asked. "Skip's idea seemed too wild to broach officially, but as long as he, a recruit, needed training, we figured on our low level, not bothering to notify Washington, we might as well give it a whirl. You came along for the ride and on the off chance. Nobody was more flabbergasted than us when it paid off."

Yvonne's face was lost and unhappy in her helmet. "I'm not a good liar," she said. "I hate lying."

"I'm an expert," Skip assured her, "and outside of my friends, I enjoy practicing the trade. Shall we go?"

Wang Li arrived within ten hours.

Skip and Yvonne had lost track of the world, had forgotten about him. There, in that curving chamber, confronting that dome where elven forms and leaves and blooms crowded the air, they were coming to know one who fared between the stars.

"What most of the lattice and all of the plants are," Skip breathed. "I'll bet

my right index finger. Not machinery, not oxygen renewal; the ship must have more effective systems. But pleasure. Renewal of the spirit."

Yvonne regarded the great, dripping, rugged shape beyond. By now, every showpiece had been passed through the curious portal. The Sigman floated, rapt in a photograph of York Minster's Five Sisters. "Do you know," she said as softly, "it isn't hideous. Not by our standards either, when you look at it right."

"Shucks, I could'a told them that three years back," Skip answered.

Across his mind drifted recollection of what he had said to her, their first day alone on the sea ship: "Because most people lack the taste to realize the Sigman is not repulsive, I suppose unconsciously they took for granted it's a philistine. Sure, plenty of thinkers figured it'd be interested in our art, same's we'd be in Sigman art—but from the outside, as another phenomenon to observe and write a scientific paper about. What art they showed it at the beginning was such a small proportion of the diagrams and whatnot, and damn near randomly chosen, our chum may not even have recognized the objects for what they were. And anyway, priority was put on communication by words. Everybody assumed that when that'd been achieved, any further matters could be discussed at leisure. They forgot words are by no means the only language. It never occurred to them the Sigman might've made this tremendous voyage for *no* other purpose than artistic inspiration—that the planets themselves provided so much that it begrudged what time it gave us, seeing as how we never brought anything it particularly wanted—"

His reminiscence broke off. The Sigman was approaching the dome wall. The photograph was held lightly in one set of claws. The surrounding tentacle-fingers had plucked, from a resting place between vines, an album on the Parthenon. Another "hand" gripped the optical projector.

Skip moved close. Awkward, he cartwheeled and swore. His inexperience in free fall kept delaying matters. Finally he got himself braced, sketchpad and pencil ready. Holographic equipment had been brought along but didn't seem indicated at the moment. The Sigman pointed at the pictures while tracing lines of light which remained aglow until it erased or altered them. Skip's pencil flew in response.

"Uh-huh," he said, mainly thinking aloud, "it's fascinated by the contrast between Classical and Perpendicular architecture . . . is my guess. What do they have in common? Well, like the Golden Rectangle—I s'pose I can make that clear—" He remembered his companion. "Say, Yvonne, here's a chance to extend the verbal language a bit, if I can convey an offer to swap sketches for its learning words—"

A spacesuited figure flew in. "Oh!" Yvonne half screamed. Skip spoke more pungently.

Wang Li checked his trajectory, secured baggage, and opened helmet. Cold fury congealed his features. "What is this?" he demanded. A forefinger stabbed at Skip.

The sigaroon bristled. "Sir, the proper pronoun is 'who.' Or if you mean your question literally, then it's my belly button."

Yvonne floated, gulping. "You . . . Professor Wang . . . th-th-this soon?" she stammered.

The Chinese glared. "My service insured itself against treachery. I had hoped the precautions were needless."

"But—no, no—"

"I assume you do not intend murder," Wang said. "I shall inform my escorting officer that he can return to our ship." He left.

Skip sought Yvonne, to hold and comfort her. The effort was a fiasco; he ended floundering in midair while his sketchbook and pencil drifted from reach. She remained alone in her desolation. The Sigman hooted. "Sorry 'bout this," Skip muttered at it.

Wang returned and started removing his spacesuit. Skip drifted within reach of a handgrip and stopped himself. He needed a minute to recover from the dizziness raised by centrifugal and Coriolis forces before he could say: "Let me introduce myself. I'm Thomas Wayburn. You must be the Wang Li I've heard tell of. Honored to know you." *Like the buck who got tarred and feathered and ridden out of town on a rail, and when they asked him later how he felt about it, he said that except for the honor, he'd sooner not have.* "I'm a new recruit who seems to've touched off the most surprising development in this project since—"

"Yes, you have a glib story prepared," Wang said. "Please spare me. What are those objects in the dome? Pictures and—This was no deed of impulse. What is your plot?"

Skip was spared an immediate need to reply by the Sigman's vanishing aft. Yvonne rallied and said, "Just when we had kindled interest there, yes, eagerness, you interrupted."

Wang pinched his mouth together. He continued unsuiting and making his living arrangements. Skip thought: *This*

kicks us over to Plan Delta. Though I doubt we'll find a chance to hoodwink him, if he's the shrewdie they say. Odds are we'll be driven back to perfect honesty and straightforwardness. Well, that's more relaxing—

There was no sound, no shiver. Suddenly they, everything loose . . . drifted to the dome surface, a slow and gentle descent, yes, descent, because "up" and "down" existed again . . . weight increased minute by minute, and Wang cried aloud in Chinese, Yvonne gasped, Skip yelled, "We're moving!"

Wang's lean form straightened. "Quickly," he rapped. "Too many articles have been placed in the expectation of continued weightlessness. We must rearrange them before they topple together and are ruined."

Skip respected him for that; and the job did take his mind off itself. Not that he was afraid. The Sigman could ream the humans out by better means than this, if it wanted. Excitement trumpeted in him. *Where are we bound?* Still, the prosaic tasks of straightening out the mess helped him stay on a moderately even keel. By the time they were finished, acceleration had stabilized at what Wang and Yvonne agreed must be the one-third gee normally observed. Skip reveled in bounding around, feathery light, till she begged him to stop.

"Not now. We have to think. What are we going to do?"

"Why, wait till our host returns," Skip said. "You knows a better 'ole?—And here he is."

The Sigman clambered stolidly about the lattice, assembling the artwork. Yvonne shook her head. "My ears hurt," she complained.

"Mine likewise," Wang said. "And do we not appear to be speaking more

loudly?"

The reason burst upon Skip. "Chew and swallow," he advised. "Equalize air pressure inside and out. Pressure's rising. I'll bet you, Professor Wang, I'll bet you a dinner at the best restaurant in Peking against a can of slumgullion, it'll reach about two Earth atmospheres and stop. We can stand that and the Sigman probably requires it." He hugged Yvonne. His laughter came half gleeful, half hysterical. "It wants us to come join it!"

XIII

SURELY NEVER BEFORE had children of Adam made so strange a journey this side of death.

For a timeless time that watches and calendars finally counted as seven weeks, the great ship swung around the Solar System. It did not seek the outermost reaches. That would have taken much longer, across the unimaginable vastness of this least lost eddy near the rim of the galactic whirlpool. But speed, mounting instant by instant (at a rate which turned out to be an order of magnitude lower than what that fantastic engine was capable of), carried it a hundred million kilometers from a standing start in 70 hours. The next equal period saw thrice as much distance added; and thus the faring went. Using the second half of the transit from world to world for braking, interplanetary passages were still reckoned in days.

Nor were the interludes of travel empty. For Skip in particular, every waking minute overflowed with discovery and achievement. Sheer physical exhaustion would send him toppling into a sleep which was almost a faint;

but he awoke refreshed, ravenous less for food than for more work, more rap-ture.

Practical problems had early been taken care of. "I trust the Sigman realizes our food supply is limited," Yvonne said.

"Let us eat in its presence and pantomime," Wang suggested.

"No, let me draw pictures," Skip countered. "We're catching on to each other's graphic idioms already. Main problem is, it's used to three-dimensional representation—kind of an X-ray view to boot, like some aboriginal human styles—but I can prob'ly borrow the optical projector, and anyhow I know it savvies perspective on a flat surface, because when I render cubes and such that way, it copies them off three-D, and vice versa."

Wang registered irritation. He plainly didn't like chatter.

The Sigman soon understood, or rather had foreseen the problem. It took them to a place where an enigmatic quicksilver shape hummed, and made gestures. A bar of brownish material slid forth onto a tray (?). Skip and the Sigman exchanged sketches. "People-type food," he reported.

"How can it be certain?" Yvonne fretted. "I'm convinced it means well. But this stuff could be 99 percent nourishing to us and one percent deadly poison. We're none of us an analytical chemist, even if the equipment were aboard."

Skip shrugged. "Reckon we need a guinea pig."

Glance met glance and recoiled. Wang said slowly, "I do not wish to seem cold-blooded, but Mr. Wayburn is untrained, the most nearly expendable."

"No!" Yvonne seized Skip's wrist. Her tone was frantic. "He's the one we can't do without. The artist, the— You or I, Wang Lil!"

"Uh-uh." Skip shook his head. "Not you, robin. How 'bout we toss a coin, Professor?"

"And I lose, and die, and two Americans remain?" Wang spoke quietly. His face was less hostile than it was set. But he stood immovable. "Never."

The moment stretched—until Yvonne grabbed the bar, bit off a piece and swallowed.

Skip caught her to him. "You all right?" Across her shoulder he spat at Wang, "You son of a bitch."

"No, stop, don't fight," Yvonne pleaded. "I'm not hurt. The thing's delicious. Like, oh, steak and Gravenstein apples? I'm going to finish it, and you two are going to shake hands."

Tension did not depart from beneath the surface of politeness for an Earth-day. Then, when she reported herself in excellent health, the three of them started learning from the Sigman how to use the machine.

Was "machine" right? Like almost everything they encountered, the apparatus had no mechanical controls, perhaps no moving parts whatsoever. You waved your hands in a certain area, in certain patterns, guided by displays which appeared before your eyes. Reading those was not hard. Thus you determined the kind, amount, and temperature of what would be produced (presumably from waste matter, conceivably reassembled atom by atom in a set of hydromagnetic fields). Nothing that came out was distasteful or dangerous. After a while, when communication was better, the Sigman explained that the device was incapable

of emitting substances harmful to humans. With practice, they grew able to imitate a growing variety of known foods. Yvonne found relaxation in developing comestibles Earth had never seen.

The Sigman fed itself from a similar device in the same room. "This virtually proves what has been suspected," Wang declared. "They have made previous expeditions here, which carried out intensive biological studies. The ship arrived ready to house men."

A third silveriness gave clean water. "Now if only I could figure how to make ethyl alcohol without live yeast," Skip murmured. But he didn't really miss drugs, not in this delirium of revelation.

Body wastes and organic trash were dropped at random on the resilient decks. Within seconds they were recognized and absorbed, returned to the closed ecology of the ship. (Or the life of the ship? More and more it seemed as if the vessel was not akin to a robot but to a plant-animal symbiosis, drawing energy from its private thermonuclear sun, nourishment from the gas and stones of space.)

The environment required adaptation. Air was always thick, hot, and humid by terrestrial canons, though well within mammalian tolerance. Skip borrowed a pair of scissors, reduced his trousers to shorts, and wore nothing else. His companions stayed with their regular garb.

The intense orange-yellow light caused headaches until the Sigman demonstrated how to make local adjustments and have any illumination desired. Odors were everywhere, rich and strange. A terrestrial greenhouse was bleak by comparison. Some took a little getting used to, but most were

enjoyable from the start—suggestive of green growth, spices, roses, ocean beaches, thunderstorms, a woman's sunlit hair, uncountably much, whole worlds full of life and weather. In like wise, tones pervaded the interior, resonant, sibilant, everything man could hear and probably a great deal man could not, single notes or melodies. (Melodies? The patterns, though equally pleasing, were too complex to identify as music. But then, a savage who has known only voice and drum might find the *Tod und Verklärung* bewildering.)

Nothing was monotonous. These many stimuli, and no doubt more which did not reach skin-enclosed human nerves, kept changing. Breezes followed calm, dimness followed brightness, temperature and humidity and ionization were not constant, fresh aromas and sounds replaced those of a minute ago, sometimes the deck would ripple underfoot—you never felt imprisoned aboard the Sigman again.

Its geometry alone guaranteed that. Beyond the barrier dome, which now stood permanently open, lay no rigid structure of halls and cabins. Corridors wound in labyrinthine loops. The Earthlings, who were free to roam them, would soon have been lost had the alien not pointed out how the plants which grew in some, the glowing cryptic murals which decorated others, doubled as a system of indicators. ("For our benefit," Yvonne guessed. "Our friend doesn't need signposts.") Evidently a passageway could bulge inward on command, forming a room of adjustable size and shape, almost anywhere. The Sigman obliged its guests with separate chambers and sealable entrances. Rubbery daisies grew from their decks.

Skip amused himself at the control area of his apartment, adding an easy chair and, at the point where water flowed in response to a gesture, washbasin and bathtub.

All this was done and learned in the course of the first few Earth-days. It was mere preliminary to what came after.

There was an observation turret, but that is the wrong word. The humans stood on a transparent bridge, at the center of a great hollow sphere which reproduced the view outside. Reproduction was not absolutely faithful; the dangerous brightness of the sun was stopped down and actinic radiation must be omitted; but otherwise the simulacrum was more truly *space* than what men had ever before seen through window or helmet. The Sigman was elsewhere, tending the conn it had not yet shown them. They were braking down toward Mars.

In silence and night, they almost forgot how steamy the air was. Stars in their myriads glittered winter-keen, the Milky Way cataracted around heaven, the far small sun burned within a pearly lens of zodiacal light. Ahead loomed the planet, gibbous between white northern polar cap and antarctic duskiness, a hundred different umbers and rust-reds dappled blue-gray-green and one tawny dust storm, crater scars waxing naked-eye visible, a vision whose austerity transcended itself and became purity. Yet the glow therefrom which fell upon the humans and evoked their faces from the dark was hearthfire soft.

Wang broke a long hush. He spoke low, with none of the stiffness he had used before: "My younger son dreams

of being a cosmonaut. He said to me once, if we get ships like this he will renounce the ambition, for the work should not be easy. I approved of his attitude. Now I wonder whether he may have been mistaken."

"I think he was," Yvonne replied. "Is Beethoven easy, or El Greco, or Aeschylus?"

"My little girl would love this sight," Wang said. A smile touched him. "She might ask why no bough of peach blossoms crosses the funny moon."

Abruptly, as if shying, his tone grew parched and he continued: "Why were we taken here? Men have been on Mars, and the Sigman has made repeated visits. What is its motive?"

"Several, I'd guess," Skip answered. "First, practicality. At long last people have shown they can present something that makes the trouble of building a common language worthwhile. For that, it's handier having weight. Second, if we're going to accelerate, why not a Cook's tour? In fact, that gives endless opportunities to compare notes and—well, like the captain and I do pictures of the same planetscape, acquire techniques we'd never have thought of—isn't this what it wants from us? Our science and engineering are ridiculous. Our biology and so forth were described maybe thousands of years ago. But a cross-fertilization of arts—"

"As China influenced Europe in the eighteenth century," Wang nodded, "or Africa did later."

"Or Buddhist motifs from India affected China earlier," Skip said, "and they in their turn had been affected by the Greeks. Or take the Eighteenth Dynasty of Egypt, most brilliant period they ever had, because for a short while they allowed in a breath from Crete

and Syria. Well, you get the idea. The third motive for this trip—" He stopped.

"What is that?"

"Never mind."

Wang's eyes, which had been filled with Mars-light, swung to him. The others could see how he tautened. "Are you scheming behind my back again?"

"Oh, dry up," Skip said in anger, "and blow away." He struck the rail with a fist. "Do you have to trot out your grievances every hour on the hour? Okay, chum, I'll tell you what I think the third reason is for leaving Earth's neighborhood. To prevent any more dismal nuisances like you from joining the party."

"Skip," Yvonne caught his arm. "Please."

"Best I withdraw. My regrets, Dr. Canter." Wang bowed and walked on down the bridge. He was soon lost among the star clouds.

The ship carried tenders for visiting planetary surfaces. In one of these, the four beings descended to Mars, skimmed across thousands of kilometers, hovered near the ground for closer looks. Their craft was a lean, tapered cylinder; save for enclosures that must contain engine, controls, and instruments, its hull was practically invisible. "To radar also, I presume," Wang said. His voice trailed off. The same thought stirred in three human minds: *What a bomber, what a missile!*

Yvonne said in haste, to repair the fragile truce, "But harmful rays have to be blocked. Sigma Draconis is cooler than Sol, gives off less ultraviolet. That should mean the life there is more vulnerable to UV and the rest than we are."

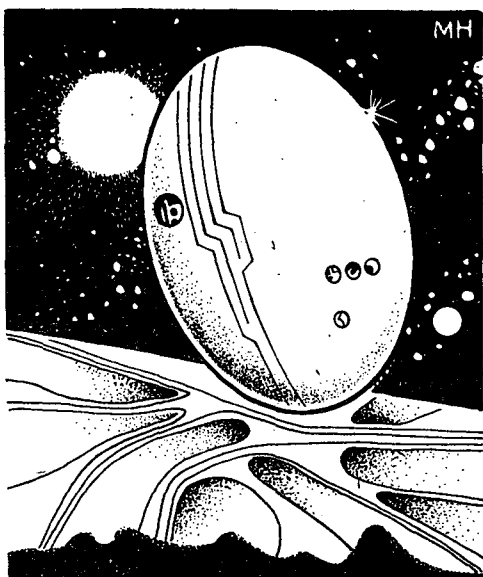
"Me, I'd give a pretty to know what drives this critter," Skip said. No jets or rockets or propellers did, nothing discernible, nor was anything to be heard save the ghost-thin screech of cloven Martian air as the desert reeled away beneath. "Hydromagnetics? Insufficient in open space, maybe, but when a large mass is nearby to react against—" He walked forward to the Sigman, a pair of whose lobster-octopus hands were making pilot's motions. The rear eyestalks extended toward him. He opened his sketchbook.

"What do you plan?" Wang asked suspiciously.

"Why, find out if our buddy has investigated Earth. A boat like this could travel unnoticed, except maybe in a rare glimpse that the glimprer 'ud take for a mirage or a speck in his aqueous humor or maybe he should swear off the sauce. Anyhow, it could if it avoided densely populated areas, or observed 'em from high altitudes. And you wouldn't really want to park in Times Square, would you?"

Skip ascertained that his idea was right. He suspected the Sigman had avoided making contact on those flights lest it be detained in a gravity it could not long endure. He suspected further that remote sightings of architectural masterpieces were all that had encouraged it to keep trying with Genus Homo.

Shortly afterward, they made their first of several landings. Spacesuited, they went outside. The Sigman's protection resembled a clear plastic sack drawn snug around limbs and lower body, loose on top to leave the sensor tendrils unhampered. ("Why does pressure not stiffen it like a balloon?" Wang wondered, and found no answer.) The



sites must have been chosen forethoughtfully, because they did not sustain the generally drab impression which terrestrial explorers had brought home. A dunescape rolled in muted red and black; a cliff stood vivid with ores; a crag reared stark against dark-purple heaven. Belike the Sigman was disappointed to learn how badly Skip was hampered by his gloves, and cut the tour short in order that drawing and painting might continue.

Mars dwindled aft. The ship drove on outward.

Somehow the humans took to calling the Sigman Ahasuerus. They failed to establish whether its race had nomenclature. "I would guess not, in our sense," Yvonne said. "Not a noise attached to an individual. Instead, a whole complex of associations, appearance, personality, scent, stance, the entire identity remembered and reproduced in a cluster of symbolic acts when identification is required." Musingly:

"If it is. Sigman individuality may have fundamental differences from the human kind. The clues we've gotten thus far—"

Nonetheless Ahasuerus the Wanderer quickly learned to utter a special sound that meant a particular guest. And it took the initiative in developing certain imperatives. Between Mars and Jupiter it frequently said, "Yvonne Canter and Wang Li, go. Skip stay." Or: "Skip come with me. Yvonne Canter and Wang Li, do not bother us if you come too."

Those were the occasions when it wanted to pursue study of the terrestrial material, or show off work of its own—which was not readily describable in human language—or compare methods of depicting a particular subject, like a flower or a part of the heavens. Wang soon used up its interest in his calligraphy, and thereafter the linguists were often ignored.

They put those episodes to use, planning further vocabulary and grammar against Ahasuerus' next session with the vocal synthesizer. Gradually their mutual wariness diminished. "I understand that you cannot be blamed for policies forced upon you by your government," Wang said once when they two were alone. "Indeed, you are to be pitied. Your life twice endangered—"

"Twice!" she exclaimed, startled. "How did you know that?"

Wang showed a moment's chagrin. "I spoke rashly. You are right, the news was not released." He took the offensive. "Why not?"

"To avoid making a bad situation worse." She backed a step from him. "You have spies among us, then."

"And you among us," he retorted. Turning mild: "Yes, I was informed of your second misadventure. I do regret the trouble, I do wish you will have

no more. For your sake I beg you, put away your naïveté."

"What do you mean, Professor Wang?"

"You are too trusting. You actually believe that the news about you was suppressed for altruistic reasons. Have you never thought that its broadcasting might entail the release of other facts the American government would prefer to keep secret?" Wang's voice was metallic: "Is the young man who accompanied you really the simple-minded boor he pretends? What influence is he exerting on the Sigman at this moment? What has he discovered, what has he conveyed, that you and I have not been told of?"

Heat and cold washed through Yvonne. Her foot thudded against the deck. "Stop that!" she cried. Later her vehemence would astonish her. "Skip's the most honest, bravest—all right, he doesn't have a proper Chinese reverence for age and position, but we have him alone to thank we're here today and, and, and when I was kidnapped he went into the Underworld and found a man who knew where I might be and talked him into—" Sobs overran her. "If you knew how sick I am of people accusing people! What race of Satan Mekatrigs are we, a-a-anyway?" She whirled and fled.

At their next meeting, they traded formal apologies. The breach was healed anew. *But every time*, she thought—and concurrently thought that this was a Skip way of putting it—*the scab is thinner*.

Jupiter, imperial world, vast amber shield richly banded in clouds that are ochre and bronze, dimmed greens and blues, twilight violet, furnace jewel of the Red Spot where four Earths could

lie side by side, ruling a moonswarm whose chieftains could be small planets: your grandeur is only less terrible than the sun's.

Skip floated in the observation globe, tethered to the bridge, and let his gaze drown in the sight around which he orbited. Its radiance drenched him and Yvonne, at this distance surpassing 50 full Lunas upon Earth, overwhelming the stars and flooding the watchers in gold. They were alone.

She said finally, "I cannot understand why Ahasuerus isn't here also, looking."

His mind was slow to come back to her. What drew him at last was the light, molten in tears that broke from her fluttering lashes and drifted off into the silence. He thought of Danaë, and wished he could find a better answer than: "Reckon it's gone to bed, like Wang. Nobody's tireless. Wang's not young, and Ahasuerus has had a rough day. Two and a half gravities, when you're evolved for oh-point-three—imagine."

"You?" Her fingers strayed to his shoulder.

"M-m, I'm pretty fagged and battered myself. Astronomers kept telling me and telling me, Jupiter's uppermost atmosphere has storms in it that'd blow out a terrestrial hurricane, they told me. But no, I had to go fly a boat there." Skip's levity faded. His eyes returned to the Shining One. "Worth it," he whispered, "a million times over. The vapor banks, taller than mountains, wider than vision can reach, rising, tumbling, lightning alive in them and the colors, the colors. . . ."

"You were crazily reckless to go, Skip. Please don't again."

"I will if Ahasuerus will." He turned about and caught her hand. "Look,

Yvonne, the jaunt today was its idea. I figured it knew what a tender can and cannot do. And when it showed me how to pilot the boat, let me take over in the Jovian air—Lord, surfing isn't in the same class!" He paused. "No worries. That funny harness supported us perfectly well, and tyro though I was, I never lost control. You know, I suspect that's what Ahasuerus has in mind. It's worse handicapped in high gravity than we are. Man-Sigman partnership—what can't we do!"

She sighed. He cocked his head. "You look unhappy," he murmured. "Problems?"

"N-n-nothing." She averted her glance. "Tired. Emotional strain. . . . No, don't blame Wang Li. I'm simply that kind of person." She wiped her face. "And to tell the truth, this tropical climate is grinding me down. Do you think we could arrange for a room to be kept cool and dry?"

"Probably, if we can get the message across. However, you could be comfortable right now if you'd shuck that mess you're wearing." Skip's gesture went from her coverall to his shorts. "Let Wang be a good self-abnegating Communist and maintain the dignity of the Party in his brown outfit. You and I don't need more than pockets. Why, at weights from zero to one-third, you can omit a brassiere and not sag. Which I don't imagine you do anyway."

The Jupiter-light was so brilliant that he saw her flush. He cupped her chin in his left hand, laid his right on her hip, and said. "Yvonne, your Ortho itself dropped nudity taboos outside of completely public places before I was born. We've both seen square kilometers of assorted human skin, and this is hardly a public place. Nobody's about to force

his attentions on you. Why are you scared to be comfortable?"

She breathed in and out and in again, teeth clamped together, until: "All right!" she ripped out, half in defiance, and pulled the garment off before she could lose courage.

"Marvelous," Skip laughed. "I did not promise not to admire. You're beautiful."

"I'd better go," she said shakily. "Goodnight." She released the tether to her belt, held the coverall across her front, and pulled herself along by the rail. Skip stayed, watching her move through the rain of gold.

Ahasuerus indicated Saturn was next. That would be a long reach, especially when the sixth planet was nowhere near conjunction with Jupiter.

The four aboard settled down to a systematic quest for comprehension. This did not mean that the Sigman now spent most of its time in the presence of the sound synthesizer. In fact, spoken language remained the least part of its effort. Twice as much went to Skip and the graphic and sculptural arts, thrice as much to whatever it did when humans were not around. (Likeliest it worked on its own projects, Skip thought, or simply contemplated the movement of a leaf, the blueness of a star.)

But Ahasuerus did show more patience with the linguists than hitherto. Either it had decided that in the end it would have to communicate with Earthlings via speech; or Skip had gotten that idea across by the half-intuitive hieroglyphics which were developing between him and the Sigman; or something else had happened inside that nonhuman awareness. Whatever the

reason, the synthesizer now averaged two or three hours per day in use.

Progress was helped by the circumstance that increasingly, Ahasuerus could read Skip's terrestrial-style drawings and he could read its fiery networks in the air. And each was mastering the other's pictorial technique.

Yvonne soon forgot the skimpiess of her present garb. Wang forgot his disapproval of it. They were both too busy, holding verbal sessions, analyzing the results, planning for the future. "We are two attempting the task of a score," he said ruefully. "We are fortunate that, between us, we command a variety of languages. But I wish we had speakers of Arunta, Nahua, Dravidian, Xosa—"

"— the whole race of man," she finished, and brushed a damp black lock of hair off her brow. "Well, when we return, maybe. . . . I pray to the God I don't believe in, let this bring us Earthfolk together."

He made no reply. The unspoken thought hung between them: *Thus far it has driven us more apart.*

Work took them in its arms and gave them discovery. They had reached the threshold of being able to ask questions.

Answers emerged, swiftly or slowly depending on obviousness.

The ship was in truth from Sigma Draconis, the second planet of the star. The planet had about a fourth of Earth's diameter, and a lower mean density. That was no surprise; and comparing the size and atmosphere of Venus, you began to wonder if Earth might not be a freak, holding less air than a world its size and temperature was entitled to. (Ask, ask! The Sigmans have visited scores of suns, these past x thousand years.) There were seas and land masses, the latter in islands rather than true

continents. There was no natural satellite. The rotation period was approximately 50 hours, the axial inclination scant, the year about a fourth again the length of Earth's . . . no, wait, can't be right, the planet would be further out and therefore cooler . . . no, the star's less massive . . . let the astronomers decide. A whole new cosmology will open for them.

Sister globes—Not yet. First let us inquire into the sentence born of that one world. What use the universe without life that can wonder at it?

Several of the strictly biological puzzles were cleared away in short order. The guess turned out to be correct, that Sigman bodies lacked the multifarious interior specializations of human. What separate organs identifiably existed were primitive by comparison with a stomach, a gonad, a brain. The tendency always was for a given kind of cell—far larger, more elaborate and versatile than any terrestrial analog—to handle a variety of functions. In like manner, the species had a single sex, though two partners were needed for impregnation: of both, who both gave live birth. Apparently matings were for life, and apparently life was for centuries.

Subtler questions could, at the present stage, only have inferential answers which might well prove wrong. But slowly the tentative conclusions grew:

Sigmans did live and think at a more leisured rate than men. The same was not true of perception; they swam in an ocean of sense data and responded to nuances on almost the molecular level. Pheromones played an enormous role between persons, as did the most delicate cues of every other kind. While

speech was well developed and writing highly so, these were mere parts of language—useful, for certain purposes essential, yet never to be mistaken for the whole.

And that whole was in turn a unitary part of the world. Doubtless individual Sigmans varied as much as individual humans do. Nonetheless Yvonne's conjecture looked right, that individuality itself was more diffuse, less clearly demarcated from the rest of reality, than ever on Earth. ("Super-Zen," Skip said.) This helped explain how Ahasuerus could spend years on end alone. It did not, by its own standards, have an eremitical personality. It did have indefinitely many sub-personalities to interact; and none of these felt isolated when they perceived an entire cosmos around them. Eventually the traveler would long back home. But it was in no hurry. Here it had magnificence to explore and depict and become one with.

Esthetics might well have been the prime evolutionary factor calling forth intelligence on the Sigman planet. Theories held that curiosity had done this for man's ancestors. The trait was of survival value in making an animal learn the dangers and possibilities of the environment. Conceivably the ancestral pre-Sigman, being already open to its surroundings, and intensely aware of them, benefitted correspondingly from a drive first to seek, later to create harmonious conditions of life. Thus when the scientific method appeared, it was less a technique for expanding the realm of precise knowledge than for reducing intellectual chaos to a set of elegant solutions.

Of course, man had the latter ideal too, and doubtless the Sigmans had

curiosity. The difference was in emphasis. In either species, technology soon took pragmatic advantage of scientific findings. If Yvonne's and Wang's impression was right, war had always been unknown among the Sigmans and destruction of land or befouling of waters, which ran counter to instinct, were rare. Thus the machine was mostly a benefactor.

This did not mean Sigmans were natural saints. They might be less capable than man of devotion to a group or an ideal, more prone to callous exploitation of their fellow individuals. That was sheer speculation. However, Ahasuerus' failure to grasp certain ideas like infinity was almost unambiguously shown. (Draw a series of larger and larger triangles on the same base. The two rising sides will become more and more nearly parallel. Draw them, at last, exactly parallel, breaking your pencil lines somewhere and pointing to indicate that the ideal lines continue. Ahasuerus never took that final step; instead, it made noises of negation. You could nearly hear it thinking: "But they don't.") Maybe humankind had something to teach Sigmankind in mathematics as well as art . . . in philosophy, in poetry and music and dance. . . . There are many more kinds of love than the sexual. What kinds might arise between the comrades of two races, three, four, a thousand, a million?

"Oh, glory, glory," Skip chanted to the stars, until the hour came when everything was ruined.

XIV

FAR UNDER the spaceboat the clouds of Saturn lay like a continent, plains,

mountains, canyons, slow smoky rivers. They were white and dim gold, the shadows upon them were royal blue, and off the brightest was reflected a ghost of the rings above. Yvonne kept her gaze mainly on the rings themselves. Against blackness and stars they soared, gigantic rainbows sparked with moving, twinkling points of prismatic light, overwhelmingly awesome, impossibly lovely.

"I am reluctant," Wang said into the silence. "But we had better return."

She nodded. He glanced at the instrumental displays which hovered above the control cubicle and moved his fingers beneath them. Acceleration pushed bodies back into seats, and the continent dwindled toward a spheroid.

Wang activated the broadcast transmitter. "Hello, ship," he said. "We are bound back. How shall we rendezvous?"

A monitor was set to notify Skip, and radio outlets were everywhere in the mother vessel. His voice came in a minute: "Hi. Did you have a good time?"

"'Good' is a poor little word," Yvonne answered mutely.

"Yeah. How well I know," Skip said. "Not that I'm sorry I stayed aboard. Tell you 'bout it when you arrive. . . . Lemme check, uh, with Ahasuerus. . . . Simplest is if you make for Titan. At one gee. We'll intercept. Can do?"

"Yes." Wang repeated the plan and signed off. His hands called for a projection of the local system. In its alien style it resembled a schematic drawing. He identified the largest moon and indicated that he wished to go there at the specified acceleration. The boat turned its nose through an arc and lined out.

When he learned that Skip had been taught to operate the tenders—as he did on the first trip into this atmosphere—Wang had insisted on the same privilege. There wasn't much to convey. A computer (?) did nearly everything. Crossing space in such a vehicle was safer and easier than piloting a car manually on an empty highway.

Then Ahasuerus made known that it wished to shuttle around the planet, presumably to view at various angles and distances, for some hours before starting sunward. Yvonne and Wang wanted to repeat the near-religious experience of seeing the rings from below. They had already observed them afar, and superb though that had been, it was not the same. Skip thought likewise, but the Sigman was insistent he remain. It raised no objection to the proposal that his companions revisit the primary. Saturn was perfectly safe, at any rate if you stayed in the upper stratosphere. Receiving less than a third of the slight solar energy that Jupiter gets, those layers are calm, and at their height the force of gravity is scarcely more than on Earth.

Yvonne stirred. "If we could tell them when we get home," she said. "Tell them in a way to make them believe. How little we are, we humans; how big we could be; how squalid our intrigues and quarrels."

"I think they already know," Wang replied, "apart from a few monsters. Unhappily, a number of the monsters are at the levers of power, which requires honest men to respond in kind."

Yvonne felt a sad smile cross her. "Nobody can agree which is which." She spoke no further. Her wistfulness could not last, beneath that bridge to the gods.

They stood in the observation chamber and watched the world recede. Wang and Ahasuerus occupied one end of the bridge. He was making a poem about it, and the Sigman was keeping an eye of its four on the characters he drew. Yvonne moved to the opposite end in order that she not distract or be distracted.

Still the planet was vast and radiant. The light was less than from Jupiter, more argent than aureate, though also equalling many terrestrial moons. The cloud bands were not spectacularly colored or turbulent. But the rings! And ahead, near the tiny sun, arched an immense white bow, Titan; she had stood on its eternal snows, looked through the dusk-blue of its thin air at Saturn hanging above a mountain range, and cried.

A hand fell over hers where it lay on the rail. She felt the smoothness and warmth of skin that brushed her arm, and through the myriad Sigman scents drifted an odor of humanness. "Mind if I join you?" Skip asked quietly. "I won't burble the way I did when you came aboard."

Her heart knocked. "Please do stay. You never told me what happened while I was gone."

He hesitated. "Well . . . we had an interesting time. We'd orbit first here, next there, and do renderings and—Let's not talk shop. This place has really put you on trajectory, hasn't it?"

"Hasn't it you?"

"What else?"

She turned to face him. In the faerie light he stood as if cast in silver and crowned with stars. "And we can come back," she jubilated. "Ahasuerus wants us in the universe. Doesn't it?"

Again he took a moment to answer.

"Yes. Very much." When he moved, shadows flowed among the muscles of arm and belly.

"We can come back," she repeated. "We can go on. Every dream our race has ever dreamed— It's like, for me it's like when I was newly married— No. That was always alloyed with dailiness. This. . . . Do you remember the turn of the century?"

"Sure. My gang, neighborhood boys, we got hold of some highly illegal fireworks and shot them off. Police and parents didn't do more than scold us. It was that kind of night."

"You were pre-adolescent, though. I was in my late teens. An age when the awkwardness is outlived, the hopefulness newborn, everything a miracle. And there the new century—the new millennium!—stood before us. A portal, where we'd leave all that was bad, worn-out, sordid, and run through the gate unburdened, clean, free. Into a land nobody had spoiled, the promised land. This is the same. Only it's not a youthful illusion now, it's real. It's forever!"

She embraced him. "And Skip, you won it for us. You, none but you."

He was holding her. She pulled back. He did not let go. She raised her cheek from his breast and found his mouth waiting. After a minute that whirled, she broke free and cast an apprehensive glance past him, down the invisible bridge. Silhouetted athwart the Milky Way, as if hovering free among clustered stars, Ahasuerus' pinecone bulk still screened her from Wang. Skip took her by the hair and gently, irresistibly recalled her to him: His hand traveled on down her back. His other hand—Hers were over his neck, his shoulders, his ribs. "No . . . please . . . o-o-oh . . .

Why not? Why have I been this slow?

"Come on, darling, darling. Saturn can wait. We'll be back. My cabin—" Between laughter and tears: "I came prepared. I didn't think to, but when I unpacked my personal kit I found—Rings are for lovers."

The Sigman intended to stop at innermost Mercury. Orbit to orbit, that would require about 15 days. From there, swinging still nearer the sun, it would return to Earth. (Evidently it found Venus as unattractive at close quarters as men did.) "And we'll be let off," Skip said.

Yvonne snuggled into the curve of his arm. "I won't know whether to be glad or sad," she told him. "Both, I suppose." Her fingers at the base of his spine said, *Always glad while we are together.*

Wang ignored her. He had made no comment on what had clearly been happening between them. An average Westerner would have offered congratulations. *I suppose the poor prim dear thinks we're awful*, Yvonne reflected, and pressed closer against Skip.

"Will we be allowed to take a ship's boat?" Wang asked.

They were seated on temporarily extruded couches in what had been the original reception area for humans. The scientific apparatus remained there, making it a natural meeting place. (*And we really should instigate regular dining here. Skip and I share our meals, from the planning and making to the last bite and a kiss for dessert. Wang eats all alone.*) Ahasuerus was not present. The open dome, the rustling fragrant garden beyond, reminded of the being who, Skip said he had learned, came 18 light-years to renew on behalf of its

people the sense of marvel their distant ancestors had brought back from Sol.

Wang had replied: "Do you not think the time is overpast for you to share with us—with me—the knowledge you have gained in your special sessions? This project was supposed to exemplify the ideal of international cooperation." And thus the conference had been arranged.

Skip creased his brows. "Well?" Wang urged.

"Okay, I'll speak frankly," Skip said. "I'm not certain. Ahasuerus and I haven't got a secret code that we sent away our box tops for, as you imagine."

Wang stiffened yet more, and Yvonne thought, *I must persuade my darling to act respectful. He doesn't mean harm—usually—but Wang can't understand banter, takes it for insult and replies in kind, and then Skip gets angry, and the feedback goes on and on till now they raise hackles at sight of each other.*

Maybe the cigaroon noticed, for he continued in an ordinary tone: "Not knowing the use of the sound synthesizer, I can't do Sigman imitations. We swap some words, but mainly we draw pictures. We've arrived at a lot of conventional signs, yes, and I'll make a dictionary of them if you wish. I will for sure in my official report. On the whole, though, we depend on intuition for understanding. It's like trying to read a comic strip where most of the words didn't get printed."

"You have explained that before," Wang said, not quite implying disbelief. "I asked what your impression, if you will—what your impression is of our being given or lent a tender for our descent to Earth."

"My impression is we could have one if we asked. Or if I asked. Let's talk

plain: Yvonne first learned how to speak with Ahasuerus, but I'm its lodge brother." Skip fondled her. "That it prefers my company to hers proves how alien it is." He dropped back to seriousness. "I don't think we should ask. I won't make the request. Our astronauts can take us off same as before."

Wang kept motionless. Yvonne looked into Skip's face, which had stopped being boyish, and inquired, troubled, "Why?"

"You know why," he answered. "Too tempting for governments. I believe the catchword is 'destabilization.'"

"You may be right, Mr. Wayburn," Wang said slowly.

Skip raised himself on an elbow. The forearm was under her neck, the hand on her farther side. His free hand and a foot moved along her, lingering. The light in the cabin was set low and rosy. "You're an angel," he whispered.

She reached up to stroke him in return. "I'm happy enough to be," she said, no louder. "A fallen angel, though."

His lips quirked. "Fallen, or tumbled?"

"Both. *Damn* well tumbled."

"Fallen souls together, then. Free falling . . . hey, how 'bout that sometime? . . . falling free forever and ever."

He lowered himself to nuzzle the hollow where throat met shoulder. And the delicious leisurely rearousing from drowsiness went from her, swift as a knife stab. She gripped him and said in her terror, "Do you mean that? Do you?"

"Yes," he said into her hair. "Here beside you, I finally mean it for good."

"So you've felt the same about others?"

He caught the raw note, released her, and sat up. His eyes rested grave upon her. "I catch. Yes, once in a while before, I've just as honestly supposed it was for always. Only you're different, Vonny. Nobody's like you."

She joined him, resting her back against the headboard they had shaped onto the dais when they doubled its width. She clung to his hand with her entire strength, but stared straight forward. Her voice ran quick and uneven:

"Oh, yes, I have education, position—No, please don't misunderstand, I realize you want absolutely nothing from me except myself. We work and talk well together. Probably I'm the brightest woman you've met. You're bright too, you like to learn and think, I teach you things and challenge your mind." Her head drooped. "What else? I'm not the best-looking. Don't flatter me. I'm striking. Maybe I first began to fall in love when you showed me how striking I am, ages ago on that ocean ship. But I'm no beauty queen. I'm barely on the good side of skinny. I'm trying to learn how to please you, but you must have had pupils more apt. And . . . when I'm 40, you'll be 32! When you're 42, I'll be 50."

"Won't matter," he said.

"Because you'll be long gone? That often keeps me awake after you've fallen asleep. I lie there listening to you breathe and I think, 'Under the best of circumstances we're bound to have a hard go of it. But he's an eagle and I'm a dove.'"

"Now you romanticize," he drawled. "Why not call me a goose and you chicken?"

She fought the tears and lost. He held her. "I'm sorry," he told her again and again. "I shouldn't've joked.

It's my way, not my wish. I'd not hurt you for . . . for this whole flinkin' starcraft."

When at length she rested more calmly, he gave her a quizzical regard. "Wrong time of month coming on?" he asked.

She gulped and nodded. "Feels like it."

"Doesn't make what you said less important, no. But might make it more miserable than needful."

"Uh-huh." She attempted a smile. "Curses, how I wish we had cigarettes along! Next trip we'll know."

"Atta girl." He stroked her cheek a while. Then, seating himself on the edge of the bed so he could look into her eyes while he held her hands, he said:

"Vonny, if I were in the habit of fretting about the future like you, I'd for sure be afraid. Seems to me you're likelier to get tired and kick me out than I am to drift off. But we'll just have to try it and see. I do want to try, try my utmost to make this thing last. You *are* wonderful." He drew breath. "To prove it, I'll tell you something I hadn't made up my mind to tell anybody. Maybe I shouldn't, I dunno, but I want to give you everything I have."

For an instant she was reminded of her youngest brother, who when he was five and she was having her fourteenth birthday had come shyly, adoringly to press on her a smudged and skewed model rocket glider he had assembled himself.

"I know how this vessel works," Skip said.

She straightened.

He nodded. "Yeah. When Ahasuerus and I were batting around Saturn. It wanted me to conn while it took a boat outside a while. I think it's sensitive to

the Doppler shift and wanted to incorporate it in a painting, but I couldn't swear to that. Anyway, it gave me the lesson. Easy. The single real trick is getting into the control room. You have to semaphore exactly right or the wall won't open. There's another special set of signals to activate the engines. Fail-safe precaution, I imagine. Otherwise it's hardly different from operating a tender. You stand in a miniature version of the viewroom and use a scaled-up version of the navigator displays. Then you can leave her on automatic till you get where you're bound. Shucks, I could take us interstellar. The material's on file for this entire galactic neighborhood. Just start the Bussard intake when you're up to ram scoop speed and kick in the photon drive when you're sure it won't harm anything local."

"Ahasuerus must really trust us," she breathed.

His mouth stretched his face into lumps and gullies. "That's the trouble," he said. "It takes for granted we're as . . . innocent . . . as the few other atomic-era species it knows of. Could the rest have wiped themselves out?"

"I see why you're keeping silence."

"Uh-huh. I was bubbling over at first, you may recall. Mainly I figured I'd better not let on to Wang. Since, I've been thinking, and the more I think the more doubtful I am. He himself agrees it'd be unwise to give our military types a tender, even though they prob'ly couldn't duplicate it any more than Marconi could've duplicated a transistorized TV set. But the ship! You don't need to build a fleet. This one is plenty. You send a delegation here—and Ahasuerus is going to welcome delegations from now on, if they bring artwork—and the delegation takes Ahasuerus prisoner

or kills it, and there they are, the owners of humanity."

She thought, *He loves me enough to share his fears*. She said, "Can't you convince the Sigman it must never tell anyone else?"

"I've been trying. Not easy to make clear a message like that."

"And you—thank mercy you're the one, Skip!" She reached for him. He remained where he was and said:

"If you mean we're lucky because I'll keep the whole matter secret, don't make book, Vonny. Should I?"

"What? Of course—"

"Is it that 'of course'? Suppose the power did fall to America. I'm no flag-flapper, but I don't despise my country either. Seems to me, by and large America's more decent than most, and has the size and strength to maintain peace. I'm not convinced those rickety international arrangements we've got will last much longer. Look how they're starting to come apart already. Pax Americana—is a lousy solution like that better'n no solution? Or would it work at all?" He shook his head. "I don't know. Do you?"

"No," she said. "But I have faith—"

"Is faith good enough? Think, please, Vonny. Use that well-oiled brain of yours." Impudence could not help flickering forth in a grin. "Along with a well-oiled body, hm-m-m?" Bleak again: "I want your advice. However, in the end, you realize, I'll have to decide. Me, alone with myself."

Mercury was crags and craters under a black sky, by day a giant sun whose light ran like wildfire, here and there pools of molten metal that congealed by night and sheened with starshine—tormented grandeur.

Yvonne thought she understood how the boat's hull protected her from glare and maybe from short-wave radiation. Its transparency was self-darkening in proportion to need. She did not know how she stayed no warmer than usual, when the outside temperature neared 700 degrees Kelvin. Well, if they meant to skirt Sol—Could the right interplay of electric and magnetic fields control, not only charged particles but neutral ones and quanta? She wasn't sure if that was theoretically possible. She was, though, sure that the theories of Earth-side physicists were not the last word.

Her speculation was a vague rippling across the unhappiness which filled most of her.

At the rear of the boat, Skip and Ahasuerus excitedly collaborated on a rendition in oils and Sigman pigments of a glitterstorm. Blown on the wisp of air that remained to this world, the fine mica-like particles brought out the brutal mass of a cliff behind them.

How can he be merry when fate has touched him? —I grow hourly more aware of the guilt which is ours, no matter what course we choose. And that awareness makes me less and less his kind of woman, and he feels rebuffed, and I don't pretend very well, and so he may leave me as soon as his foot touches Earth, and might that be for the best? And I pray, how I pray he won't.

Beside her in the bows, Wang lowered the movie camera he had borrowed from their regular scientific equipment. "I must have private copies of this sequence, if of nothing else I have taken," he said. "My daughter loves fireflies."

The other day, for the first time, he showed me her picture. "I'd like to meet your daughter," Yvonne said.

"Do." He sounded as if he meant it. "We will be honored to receive you in our home."

Will you? After my country has seared a city or two of yours into slag, to prove it can melt and burn everything that four thousand years of China has given us, if you don't let in its occupation troops?

"And I am hopeful that in due course we can return the visit," Wang was saying. "Already she has heard about Disneyland." He sighed. "I went there once and found it frivolous. But that is what our past two or three generations have labored for since the Revolution, that P'ing's shall have time for the fullness of culture, self-development, and, yes, a little frivolity."

If you're still living on promises after two or three generations, won't she too? You can't simply bring her to see me, because if you go abroad your family has to stay hostage behind. Dare I tell Skip such a government ought not to be obliterated for the safety, the very survival of mankind?—But dare I say it cannot evolve, that it has not already evolved, that it will never give us a better gift than Caesar's ignoble peace?

Would such a peace even last? Rome tore itself apart. Byzantium decayed.

Have I no faith in my countrymen? What if we tell Andy Almeida that we, Skip, can run the starship? Will Andy have irons clapped on Skip, and drug and torture him till he shows how? Will Andy's superiors? I voted for President Braverman. He sits in the house of Thomas Jefferson. —But Hitler started in gemütlich old Bavaria, didn't he?—What to do, what to do?

The surface pull of Mercury gave slightly less weight than the normal

acceleration of the ship. Yet it was as if already Yvonne could feel Earth's heaviness upon her.

You had read the figures: Photosphere diameter 1,390,000 kilometers, mass 329,390 times the terrestrial, energy output converting 560,000,000 tons per second of matter into radiation, prominences rising to more than 150,000 kilometers, corona extending several times as far, solar wind blowing to the remotest planetary orbit and beyond. You had seen photographs, astronomical cinema, transmissions from unmanned probes. It was interesting. It was gossip about your old friend Sol, that altogether ordinary yellow dwarf star which was expected to keep reliably lighting the world for another five billion years. You had to watch yourself with Sol, of course. He was boisterous. He could garble your favorite television program or give you a red and peeling nose. When he got really rough, if you weren't careful he might strike you dead. But at heart he was a good fellow, steady old sol.

Then you found that none of this had anything to do with that which, no matter how stopped down and baffled and buffered, flamed before you.

Sunward of Mercury, you saw at first an unutterable white splendor, swirled with storms, maned with a huge lacy rain that fountained outward and intricately down again, surrounded by an effulgence that shimmered pearl and mother-of-pearl among the stars—there are no words. But you ran nearer, and it grew, it ate the sky, its burning, burning, burning became everything that was, fire roared around, somehow a part of the fury came through and the ship rang to it, bellow and shriek

and whistle and high sweet singing; a gout of red and yellow and green and hell-blue that could cremate your planet came brawling toward you, you couldn't help yourself but had to shut your eyes and cover your ears, and the torrent raged past, engulfing you, its rumble in your marrow to fill you with fear—

And through those hours he would not hold you, he shouted you should hide in your cabin if you didn't like the show, well, he had been angry with you and you had to prove you weren't a coward so you stayed, but he and his friend didn't want you near, they were ripping forth lines, splashing gobs of color on surfaces, they were wild as the Ragnarok around them—

But the stiff gray man who loved his small daughter, he stood by, he let you cling to him and gave you the touch of his hands and when the noise of doomsday receded for a moment, as the sea recedes before a tidal wave, he would speak to you—

"We are quite safe. This ship has been here before. You have nothing to fear."

"I know, I know. Then wh-wh-why am I afraid?"

"The sight, the sound, the being in the middle of an ultimate reality . . . they stupefy. The senses are overloaded and the mind retreats for its own protection. Those artists are accustomed to an abnormally high data input. They are born for it. And I—I admit I flinch, I am daunted; but life has made me rigid, I have learned how to exclude. You are shielded in neither way. It is nothing to be ashamed of, and it will pass. You should not be here watching."

"I must, I must."

"I can guess why. And you have been

anxious of late, gnawing on your own nerves. That too has lowered your defenses against this—this spectacle which is at once psychedelic and terrorizing. I do not know why you should be unhappy, when everything seems to be going well for you—for the entire human race—”

A firefall thunders past. You hold to your solitary friend and babble, it matters not what, you reach out to him and you share.

For an instant he is like an iron bar. Afterward he eases, he continues to soothe, until the ship has rounded the sun and your lover can take you back to your cabin.

His room was so quiet that he could hear how his ears still rang from the violence he had survived. The room was empty, too, a cell for sleeping and nothing else, except that he had propped her picture before him as a tiny brave splash of color against bareness. His tunic stank from sweat, was hot and rough and tight around his neck. He wanted to take it off, wash it, and not put it back on; but he didn't.

He moistened his brush, passed the tip across an inkblock, and wrote, taking as much time over the calligraphy as the composition:

When you read this, if ever you do, you will be a young lady, beautiful, gracious, generous with laughter, everywhere creating for yourself a world of dear friends. And I will be dead, or I will be old and still more dour and unbending than I am now. What will I have to do with you? I am the daddy of little P'ing, who will have no other way to welcome me when I come home than to seize my thumb and stump off into the garden and maybe, maybe call

me a great big bag of love. But of Made-moiselle Wang, what can I hope to be except the honorable father who once in the past did a thing that is remembered? And this is natural and right. In fact, I do not think of myself as anything more than a beast of burden which has to carry certain loads in order that the new world may be built.

Please understand, I feel no self-pity. When I look upon the poor hollow people of the West, who have nothing to live for beyond their own lives, I know how fortunate I am. After you have had children of your own, you will understand. Nevertheless, may I reach across time for a moment and touch you?

If ever you read this, you will have read the histories. I want you, and you alone, to know how behind the platitudes was a man, who did not know what he really was but who knew loneliness, confusion, fright, weakness—I would like for you to know me. Therefore I have vowed neither to amend nor destroy these words, crude though they are, but leave them for you to have when you come of age.

At this hour, the entire purpose of my being is that you shall live that long.

Today, we traversed hell. You will have read about our voyage. Quite likely, to you the solar passage will be commonplace, a thing one does, hand in hand with a sweetheart on a passenger liner to Saturn. But I saw hell. Creation also, and that which calls the first foolish snowdrop into bloom before winter has ended. But hell, I say, hell, the same that could in a single fire-tongue lick devour my Blossom . . . though it might as easily carry her to the enlightenment of beauty which has been mine.

Stunned, in panic, a person whom I

sought to help let slip to me—I do not believe she remembers she did—that now the imperialists have this power to destroy you. I had hoped—No matter. Twice they have broken their most solemn oath. There shall not be a third time. I go to do whatever is necessary.

That is my duty to mankind. My clumsy confession, P'ing, is that this is only a pretense, and what I do is really my love-gift to you.

He wondered whether to sign "Daddy" or "Your Father," decided on the more dignified form, read the page through, folded and sealed it. Meanwhile he thought, nausea binding his throat: *Is there any reasonable doubt that my government is the one which hunted Yvonne Canter?*

From his baggage he extracted the recoilless magnum automatic that General Chou had insisted he bring. Chou had been right.

Perhaps Wayburn and Canter would decide to do nothing, say nothing. It was not a chance to be taken. The fact was that they had said nothing to him. The single certainty was that Chou had no reason to pass the sun's flame across Peking.

Wang checked magazine and action, put the gun in a shoulder holster beneath his tunic, and left the gripper on the garment loose so he could quickly reach inside. He stowed the letter among his sparse effects and went forth to spy out the situation.

XV

"I'M SORRY I was hysterical."

"I'm sorrier I ignored you. Let's forget it. We were both zonked out of our skulls."

Their bodies said the rest. Afterward they sought the food device. "Program for steak and French fries," Skip demanded. "If you want something exotic in addition, okay, but I need nourishment!"

Yvonne's laugh was tender. She made the appropriate passes, watching the resultant diagrams and refining her orders accordingly until they should have converged on the precise menu and production could commence. (Mammalian flesh, type bovine, 1.5 kilogram, dimensions . . . , texture . . . , degree of heat denaturing . . . , temperature . . . , flavor overtones . . .) By now expert, she did the task quickly while letting her mind wander.

"A few short days," she said, "and we're home."

"Uh-huh. We better get in a lot of preliminary relaxation. Things'll be hectic for a while, groundside. 'Course, I suppose if we're rude we can protect ourselves somewhat, but— Oh, hi, Prof."

Yvonne's hair rippled as she turned to look. "Good evening," she said. "Would you like to join us for dinner?"

Wang stood straight. His lips barely moved, nothing else did in his face except a tic at the right corner of the mouth: "Are you feeling better?"

"Fine, thank you," she told him. "I only needed two or three hours of rest and—and recreation, and I bounced right back." She smiled with real warmth. "I might not have done this well except for you."

"Where is the Sigman?" Wang's tone was hoarse and strained.

"I dunno," Skip said. "Prob'ly catching its equivalent of a nap. Anything urgent?"

"Yes." Wang made as if to scratch beneath his tunic. The uncharacteristic

gesture brought both their gazes astonished upon him. Then the gun was out and he said: "Raise your hands. Do not move."

"What the devil—?" Skip grabbed toward the waistband of his shorts. Yvonne uttered a shriek.

"No!" Wang shouted. "Stand fast or I kill her!"

Skip lifted his arms. He had seen that kind of determination before. His heart thuttered, sweat broke forth, its acridty pierced the soft wet odors in the Sigman air. On his right he heard the breath move raggedly in and out of Yvonne.

"Good," Wang said. "Now listen. I am an expert marksman, and this pistol has no kick. There are eight bullets in the magazine and one in the chamber; I assume you know the type. Seven of those cartridges are magnum loaded. Hydrostatic shock alone would kill you instantly on impact. The first two are minim. They would disable you, Mr. Wayburn, for example by shattering a kneecap, but leave you fit to execute my orders. Dr. Canter is my hostage for your obedience."

Skip thought, *Stay calm, stay loose. Watch your chance, but for everything's sake don't try any heroics. Behind that iron mask, he's on the point of amok. See how the sweat is running out of him too!* He willed his lungs to stop gasping, his muscles to stop quivering and start easing. He did not quite have command of his voice: "What do you want?"

"To control this ship," Wang said. "You were shown how, and did not tell me."

"Huh? I—I never—"

"Be still. In her frantic condition, Dr. Canter blurted the truth to me."

"No!" Yvonne's scream came as if she were being flayed. She sank to her knees

and brought hands up to cover her wild weeping.

"Do not blame yourself much." Wang's speech continued flat. "Blame me for taking advantage. Blame the Sigman for recklessly exposing creatures with whose psychology it was unfamiliar to extraordinary stress. Blame your lover for deserting you when you most needed him. First, last, and always, blame the fascists who did not keep faith. Because of them, I may no longer trust you. The issue is so great that trust in anyone except my country's leaders becomes treason to humanity."

"You fool," Skip said. He was faintly surprised at the composure his words now had. The coolness of crisis was rising fast in him. "You're supposed to be a semanticist. How can you think a swear word like 'fascist' means anything, or using it solves anything? Did Vonny tell you I wasn't going to let on?" *Or did she say what's true, that I still haven't decided?*

Wang's monotone was dreadful to hear: "No, she merely let slip that you have the knowledge. The fact that you kept silence before me speaks for itself. You may be a man of essential good will. I rather believe you are. But I must not make the assumption. The only mind I can read is my own. Furthermore, if you were taught, others will be, shortly after we reach Earth. Who is the first of them and what does he do? I do not propose to gamble with the future of several billion living human beings. They outweigh you two, Ahasuerus, and me by just that amount.

"We shall waste no more time. Conduct me to the control room."

"We'd better obey, sweetheart," Skip said to the crouched and crying woman. She didn't seem to hear.

"Assist her to her feet," Wang droned. "Keep your hands in sight of me. I have watched you exercising and know your capabilities."

Skip raised Yvonne. "Come along, robin." She hung on him and keened. He bit his lip and slapped the bare back, stingingly. She choked, then disengaged herself and shuffled beside him, in advance of the gaping pistol mouth.

"You will not be harmed needlessly," Wang said. "I will have her bind you, secure her myself, and check your bonds. I will care for you en route. On arrival, I will inform the world that we are well but should be left undisturbed for some hours until various preparations are completed. Not that any terrestrial spacecraft can likely lift off and make rendezvous sooner. They will have detected us coming, but I will throw us into an unexpected polar orbit. We will ride a tender to Peking. I will bring back men and show them how to establish the invulnerable forcefield and pilot the ship. Then all will be well, and you can probably be repatriated. If not, my influence will assure you favorable treatment."

The corridors wound and intertwined, vivid with strange murals. Leaves and flowers brushed skin and offered greetings of bright perfume. The deck was springy under bare feet. A sound like a gong beat through the moist warm air.

"What's the Sigman doing meanwhile?" Skip asked.

"That must depend upon circumstances," Wang said. Earnestness tinged the machine voice: "Whatever is done is for his race too. When man and Sigman next meet, man must be peaceful. For that, we must first liberate him from his demons."

"Skip," Yvonne whispered, "oh, Skip, what can I say? What can I do?"

"Nothing," he responded. "You truly are not to blame. I love you."

They reached the command room. He had considered leading Wang on a snipe hunt, but the general location had always been fairly obvious. The bulkhead rose sheer and plain, except for some inset lenses and jutting force-projector snouts. "Give me a clear view of your procedure," Wang ordered. And the trouble was, the motions weren't delicate like the fingering out of a dinner. For a human—Ahasuerus had doubtless made adjustments—they were half a dozen simple wigwags.

The entrance dilated. Blackness lay beyond. "Dr. Canter goes through first," Wang said. When she entered, her body shone with a white light. It revealed the layout: a spherical chamber about five meters across, bisected by a transparent deck from which rose a number of stanchion rods. At the far end was a bank of the deceptively featureless boxes which housed the controls. "Next you, Mr. Wayburn," Wang said. "Go past Dr. Canter, to those instruments. She will stay near me."

The bulkhead closed behind them, and they stood surrounded by a sky image. This was a utilitarian place, and no attempt was made at perfect fidelity. The induced illumination from flesh and garments would have interfered anyhow. They saw the brightest and the nearest stars, though most of the latter are invisible to the naked eye. They saw the sun disc, and the lovely blue and gold companions which were Earth and Luna, and the trailing drive module. The sounds that elsewhere pervaded did not come here.

Wang posted himself beside the entrance. "Stand in front of me, Dr. Canter," he said. "Two meters or so off—do not obstruct my view—there. Mr. Wayburn, I was told that operation is similar to the boats', but I want a demonstration, plus a running description of what you do."

"That'll alert Ahasuerus," Skip said.

Wang nodded. "I know. Do not think to throw me down with an unheralded burst of high acceleration. I have had Ch'an training; furthermore, I am used to travel under the awkward and varying conditions of terrestrial cosmonautics; and never forget that Dr. Canter's life depends on you."

Skip grimaced. *I can't get out of unlocking the controls; and once he's seen how to do that, he could figure the rest out for himself. Maybe the future does lie with the People's Republic.* He gesticated. "This takes it off automatic. A repeat puts it back on."

"I see. Good. Let me think. . . . Yes."

Wang's left hand closed on a stanchion in expectation of free fall. "Set us on course for Mars. That should illustrate the principles."

Skip hooked a leg around a horizontal bar in front of him and signed for a display. The airborne symbols were easy to read. He directed the ship as he had been told, explaining each step while he did. *No heroics. Nothing that'll annoy him and kill her. Kill me, for that matter. . . . I imagine the People's Republic will let us live, under a kind of perpetual house arrest. Why not? But beloved friends in the Byworld, what will become of you? Urania; her boys; Rog Neal; Dan Keough; the Vikings who had Earth's broad seas to roam in; Clarice—* And more and more, hundreds he had met, thousands he had not, in whom

lay the hope of something new, not that return of the almighty God-King which Wang Li thought was a forward step—yes, and his parents, brothers, sisters, Vonny's kinfolk, the Almeidas, Thewlis, Kurland, more and more of their kind too, what would become of them?

Meanwhile he brought the ship about. The change was smooth. A period of weightlessness save for slight centrifugal force, while the dual modules rotated, was followed by a resumption of linear acceleration, a vector combining with present velocity to bring them to that planet named for the lord of war. Nevertheless the Sigman would notice and come aft.

"How do I explain to Ahasuerus?" Skip asked.

It made his spine crawl that the sweat beading Wang's face and drenching his tunic should also shine white. "Maybe Dr. Canter can help," the Chinese said.

"I don't know," she replied, scarcely to be heard. "If we go forward to the synthesizer, maybe—"

"Let me doodle out that that's what we should do," Skip proposed.

"No!" Wang yelled. "How can I know what you are telling it?" He swallowed. Monotone: "We must develop a scheme which guarantees me against losing the upper hand." The mask split in a wolf grin. "Not unlike the deterrence concept of the missile era—"

The bulkhead opened. Ahasuerus came in. All four eyes were out. Claws clacked. The scales glowed among the stars from which it had come.

Wang opened fire.

The reports smashed at eardrums. Two low-mass low-speed slugs rocked the Sigman. Wang backed toward the bulkhead, where he hid the image of

Virgo, and fired the first of the magnums.

It crashed splintering through the armor, in among the naked cells. Juices spurted. Ahasuerus was flung off in a heap. It wailed, gathered itself and crept forward. Wang fired and fired. Each slug blasted more from the maker of beautiful things. Between shots, he waved the muzzle warningly across his prisoners. Yvonne clung to a stanchion and screamed as if she would never stop screaming. Skip turned his back.

After the fourth heavy blow, the Sigman could go no further. Its deep-seated life was almost drained, in phosphorescent wetness that spread across the deck. It lifted a claw and chopped the arm through an arc. A gob of thick digestive fluid sailed past the Milky Way. It struck Wang on the breast and ate through cloth and inward. Ahasuerus collapsed in a rattle and sigh and was quiet.

Wang whimpered for pain. But his gun, however wobbling, remained in his grip. "I have . . . three bullets left," he said through clamped jaws. He pulled the tunic open, though the acids peeled flesh from the fingers of his left hand, and shrugged it off that arm. With the wadded sleeve he wiped the ulcer that gaped on his chest.

"I will live," he said shakely. "The . . . wound is not mortal. The solvent seems to be . . . used up."

Skip approached, step by cautious step. "I'd better take a look," he said. Yvonne stumbled to him. He embraced her and whispered in her ear. She shuddered toward self-mastery.

"No," Wang said. "You will not . . . come any nearer."

"M-me, then," Yvonne stammered. "Let me help you." She clenched her

fists, caught a breath, and went on: "If you feel you're about to faint—you'll kill us, won't you? Let me see what I can do to help you stay c-c-conscious. I'm a woman, no combat training, I couldn't hold you, you'd fling me aside and—"

"—and be prepared to shoot." Wang wheezed with the flame that was in him. "I am . . . not weakened, Wayburn, not slowed . . . not so much. You might reach me. You could not get my weapon away in time to . . . save yourself."

"Agreed," Skip said.

Yvonne walked toward the pistol. She took Wang's tunic gingerly by the collar. He pointed the muzzle around her. "I must transfer this," he said. "To my left hand. Before you can take my right sleeve off."

"Yes," she said.

She flung both arms about his wrist in the same motion that threw her deckward. The pistol roared; a slug whanged off the deck and the starry bulkhead. He tossed her aside. Skip had bounded to him. He brought his gun upward. If Skip seized him, Skip would take a bullet in the back of the head.

The fang had been unleashed while the sigaroon did not watch the murder of the Sigman. As he sprang, he drew it from the rear of his waistband where he had stuck it. The point went into Wang's throat, the edge slashed across.

Blood fountained over both men and Yvonne. Wang fell. They thought they heard a noise from him like "Yao—" Afterward was only a brief horrible bubbling; and silence; and the blood of man and Sigman flowing together on the deck and blotting out view of the Southern Cross.

(Continued on page 112)

THE ELECTRICAL



BUTTERFLIES

by **ROSS ROCKLYNNE**

A Fantastic Classic

Very pretty, these illuminated butterflies; but what they did to a man wasn't so pretty. They lit on your head and . . .

Illustrated by Virgil Finlay

"COME here, Mr. Harrington!" said the dean.

Dean Tarrant was my boss, occupying the adjoining office. He was the soul of Edgemont University, a stalwart aristocrat with gray at the temples, and a modulated voice which was so controlled that any least deflection from

it easily indicated sarcasm or impatience or any one of a half dozen other unpleasant moods. He ran Edgemont with the loving care a parent gives its child.

The afternoon classes were in full swing and there wasn't much to do. I was leaning back in my swivel chair,



surreptitiously cracking English walnuts, thinking about Susan (Professor Prestpsler's daughter) and glancing at the rather unusual news items on the front page of The Edgemont City Clarion. Cracking walnuts was part of my reaction against dignity. I loved Edgemont, I adored Edgemont, but my heart was with the rowdy athletic side of her.

I had just come to the conviction that, judging from the news items—an unusual amount of murders, arsons, robberies and international disputes—that the world was on another tantrum, when the dean gave vent to an annoyed exclamation. An annoyed exclamation from him is equivalent to an explosion of temper from you. That was Dean Tarrant.

When he called me, I arose, hastily brushing walnut shells from my pants. The dean was standing near the window, looking out over South Field, beyond the Commons. A look of wounded unbelief tugged at his underlying jowls. He pointed.

"Is that Professor Prestpsler?"

"I'm afraid it is, sir."

"But what's he *doing*?"

"Chasing butterflies, sir."

"Chasing—!" He stopped, apparently unable to go on.

In the interval, I stole a look at the professor. He was little more than an elongated dot, running into the face of the Sun, through the stubble the hay-mower had left. His coattails lifted out behind him like rudders to guide his flight. I briefly saw the wings of his quarry—probably a common *Pieris Brassicae* or *Cynthia cardui*—flash in the Sun. But Prestpsler's long net swished out with as much enthusiasm as if he were on the trail of a new species. Then he ran headlong into a birch sapling and fell flat on his face.

Dean Tarrant gave birth to a gasp.

"Why—" He squinted again, as if unable to believe his eyes. He turned icily to me. "How long has this been going on, Mr. Harrington? The disgrace of it! A respectable professor of physics making such a spectacle of himself."

I said uneasily, "Why, since the beginning of the first semester, I imagine, sir. He says the South Field is ideally—"

Tarrant drew forth a handkerchief and blew his nose with an explosive sound. He turned back to his desk. I could see wrath settling into the lines and hollows of his ascetic face. He picked up the phone and dialed Prestpsler's secretary.

"Mr. Hastings? Please ask Professor Prestpsler to step into my office after his next class!"

I said "oh-oh" to myself and quietly slunk back to my desk. I knew I should have kept my mouth shut. But everybody had at one time or another lined up on the fence and watched Prestpsler's antics.

I PICKED up the paper again, and frowning, took up where I'd left off. As I say, I had the conviction that something strange was going on in the world. In one day's news you don't generally find a dozen mass murders, an equivalent amount of arson, larceny and similar crimes. Authorities were speaking of a "crime wave." But apparently they had ventured no opinion on the greater evils that were extant, i. e., three simultaneous South American Revolutions, the slap in the face the Chief Justice had given the President of the United States, the millionaire who had scattered his holdings indiscriminately on the market, with the result of an incipient financial panic. But I couldn't explain them either.

I turned the pages over — always

keeping a weather ear open for signs of the dean getting up—and came to an item on page four.

Wilkes Observatory, May 26, AP. — John K. Howard, staff worker here, last night reported seeing through the newly-installed 33-in. telescope an aggregation of small, luminous particles as they struck the atmosphere. Howard says the "cloud" disappeared from the line of sight before he could swing the telescope. The chief of staff here suggests that the "cloud" was either a meteoric display or the result of an optical defect in the new telescope, but is further investigating the subject.

The item, of course, meant nothing to me. I closed the paper and wondered if Prestpsler would get out of this fix. I felt a personal interest in the case, since Susan, his daughter, was going to be my wife.

The door to my office opened around four-thirty. There stood Professor Prestpsler, his textbook tucked under one skinny arm and a mess of examination papers under the other.

He came into the office. "Hello, Bob," he said in his gentle, mellow voice. "My, isn't it a hot day?—and such a difficult class. Sometime, I do believe I'll retire and devote myself entirely to—"

I stopped him hastily. "Dean Tarrant wants to see you, sir," I whispered tensely.

"So I understand," he agreed mildly.

"Better watch out, sir," I whispered. "He's on the war path. He saw you running after butterflies, and he doesn't like it even a little bit."

"Doesn't like it?" Prestpsler looked astonished. "Oh, but surely, Bob, he can't disapprove—" The sentence

dribbled away, and the lines of his thin, hungry face settled into an expression of apprehension. He straightened his skinny frame and edged into the dean's office.

I STOOD behind the door jamb and listened.

Prestpsler said nervously, "You wanted to see me, sir?"

I could fancy Tarrant looking up, fumbling at his glasses.

"Why, sir—" Then Tarrant stopped. He was controlling himself. His chair scraped back. He said icily, "Professor Prestpsler, you understand that Edgemont is an ultra-respectable university, maintaining rigid standards of dignity through the circumspect action both of its students and its faculty?"

"Naturally sir, and it has always been my aim—"

"And that the department of physics here is famed for its profound contributions to the cause of science?"

"I have done my part to add to its great achievements," the professor volunteered hopefully, "and I—"

Tarrant's fist came down on the desk. "Then why detract from it by making a fool of yourself chasing butterflies?" he whispered acidly. "Professor Prestpsler, to say that I am shocked, completely bewildered, by this unwarranted action—" Then he stopped again, and I could hear poor Prestpsler stuttering helplessly to himself.

The dean's chair creaked as he sat down. He rattled some papers warningly. "That will be all, sir! But please remember that any repetition of this outrage may result in an action neither you nor I will relish! Good-day!"

And the professor came out of his office into mine, his thin shoulders drooping, his head shaking mournfully back and forth. "I can't understand

it," he muttered. "I can't understand!"

I TOLD Susan the story that night, when she wondered why her father appeared so spiritless. I had been going with Susan for more than a year now. Our romance had been un-fictionally smooth, and we were going to be married. But somehow, on this particular night, there was something peculiar about Susan. She was curious about her father, but *not* sympathetic. She gave my story an almost callous disregard.

"He'll get over it," she said casually. She stood before the mirror and preened her hair for so long that I said,

"Come, come, sister! You've got a dinner-date, remember?"

Her head pivoted. Not a smile cracked her lusciously curved face. "So? Run away and eat alone then, little boy." She turned back to the mirror. She proceeded to take her time.

Of course, it was a joke and I grinned and wrapped one arm around her and tried to drag her away.

She twisted out of my arms. She said through her teeth. "Keep your hands off. When I want them on me, I'll let you know." She dropped her eyes to her comb, and looked at it almost vacuously. Then she tossed it over her shoulders. "All right. Come on, and don't look as if you've been bitten."

She swished around toward the door, and I followed, shaking my head and refusing to believe my senses.

In the restaurant I decided it was still a joke. I bought a paper and gave her the funny papers to read while we waited for the waiter to react to our presence. She liked Gene Aherne's Little Hitchhiker.

Susan shoved the funny papers onto

the floor and sprawled half over the table on her elbows. I began to boil a little.

"Sit up straight," I prompted her. "And what's wrong with those funny papers."

Her position and cold expression remained the same. "You tend to your business, I'll tend to mine," she said.

I looked her up and down. My common sense should have told me that something was eating at her. But I was aware that for the first time in our acquaintance she was being nasty. Well, I could be nasty, too, and I put the paper between us, rattling it every once in awhile as I read to attract her attention to the fact that I wasn't paying any attention to her.

THERE was the usual news, only it was considerably worse than it had been a couple days ago. An oil company official had directed the firing of half a hundred oil wells in Texas. A student riot had broken out in Alabama, and the head of a university had been murdered. A union leader had ordered a nation-wide department store strike. The consuming power of the country was frozen stiff. The President of the United States had condoned the action of an ambassador who had admittedly insulted a foreign power, and heaped more insults when the foreign power demanded an apology. An international crisis was on the make.

The paper was full of such items. Looked at impersonally, one would suppose the world had gone mad, looney, nuts. I started to turn the depressing front page in, when I became aware of the waiter standing over my left shoulder.

"Are you dining alone, sir?" he said, looking at me strangely. Something in that look made me drop the paper in a flurry of unbelief. Susan's chair was

empty! I clattered to my feet. Susan was just disappearing out the door of the restaurant!

"Susan!" I yelled. I dashed after her. But when I got on the streets, she had lost herself in the crowds.

I was still walking around in a daze an hour later. Susan, the girl I'd never quarreled with, had suddenly turned into a full-fledged tornado of temper!

As dark came, I took a short-cut across the woods to my boarding house. I had a sudden sensation of uneasiness, as if somebody were near. Like a primitive organism, I took refuge behind the handiest object, a tall poplar. I peeped out. But there wasn't a thing to see—nothing except something that looked extraordinarily like a firefly magnified ten or twenty times, a pulsing dot of fiery white luminance creeping through the air at the height of a man's head. Abruptly, it rose vertically, then dropped almost to ground level. It spiraled up, swayed in a long arc back and forth, and like a shot rose and disappeared upward.

"A looney firefly," I thought to myself, and went home.

IN the morning, Professor Prestpsler edged through the door, his weak eyes glowing with excitement. He made "shh"ing motions at me, so, somewhat mystified I went to the door.

"Bob!" he said in a stage whisper, looking apprehensively toward Dean Tarrant's office. "Bob, you've got to help me: I saw the most beautiful creatures down the road, the most beautiful, graceful butterflies. A new species. I'm sure of it, Bob. They glow!"

I drew him hurriedly into the hall. "You're not supposed to chase butterflies any more," I pleaded. "If the dean—"

"I know, I know," he interrupted excitedly. "But this is different. A new

species! You've got to help me!"

"Like fun I will!" Then I stopped. Last night—was that a butterfly I had seen? In spite of myself, I began to feel a fatal curiosity. Prestpsler took advantage.

"I knew I could count on you," he exclaimed warmly. "Here's what I want you to do. Go up to my office and get the butterfly net from behind the bookcase and meet me just outside the campus where the road turns past the stadium."

He winked at me excitedly, and then turned hurriedly as he saw I was about to protest, and walked down the marble corridor.

FEELING as if Prestpsler had used a different kind of net on me, I got what he wanted and was off across the campus. But several of the students saw me and deluged me with catcalls.

"Why, if it isn't Professor Pretzel himself," they said.

I escaped, not without presentiments of doom, and went past the stadium to the road. I looked around for Prestpsler. His "Psst!" sounded, and he stuck his scraggly head out from behind a tree. His horny finger beckoned. A second later we were cutting through the woods, he trotting ahead with little mincing steps, parting shrubbery. Then he brought me up short. We were standing in a little clearing, and he was hopefully fitting his glasses over his thinnish nose. Disappointment showed on his face as he looked around.

"Oh, the beautiful creatures!" he exclaimed petulantly. "Now they're go— Wait!" He held up a warning finger. Suddenly his arm shot out and he whispered joyfully, "There!"

He ripped the net away from me and took large funny-paper steps toward the side of the clearing. I looked and

saw what certainly appeared to be a butterfly. It was see-sawing in the air slowly. There was a phosphorescent sort of haze about it. Its wings, if they were wings, were practically invisible. Well, that was a funny-looking butterfly!

Prestpsler crept up on it, in a kind of tense drama. Would the butterfly stay there? Or would it take a silly notion into its head to flit skyward?

The net swished around through a complete arc.

"Got it!" Prestpsler cried. He expertly twisted the net to enclose the insect. Then his head jerked up. I was certain the net had snagged the pulsing creature, but it was still suspended in the air.

In determination, Prestpsler swung again, and missed again. He looked somewhat bewildered. The insect darted from the clearing then. The next thing I knew I was running after the professor as he stumbled through the moldy humus of the forest.

For some ten minutes, the professor panted along ahead of me. I was so desperately afraid he'd follow the insect onto the campus road, that I entirely forgot the more obvious danger until we had burst from the forest onto South Field.

I halted, petrified. Prestpsler was dashing headlong across the field. Then I impelled myself across the Field, and grabbed his arm.

"You're on the South Field!" I snapped, panic-stricken. "In full view of the Dean's office!"

He glanced around toward me as if he were surprised that I existed. Then he shook off my arm irritably.

"Stop it. Stop it!" he cried. "There's something terribly wrong here. The creature escapes right through the net. And you dare to suggest that the solution to this mystery is worth less than

Edgemont's respectability? Stop it, I tell you!" and he was off again.

SO I stood and watched him grimly, while he dashed the length of the field and back again a half dozen times. It was true what he'd said about the butterfly, if butterfly it were. It wouldn't stay in the net, although I know that Prestpsler had it a half hundred times. It was peculiar, too, that the butterfly's antics were as curious as those of the professor. Butterflies are notoriously senseless, but this one topped them all. It hovered in the air, and then would go up and down in a vertical line while Prestpsler would vainly swipe. Then it would flit upward, and drop down again. Then a series of diagonal drops and rises, like a radio wave bouncing from the Heavyside layer. If Prestpsler looked crazy to the students—yes, there were a dozen watching students leaning against the fence by this time—the butterfly looked crazier.

Then I saw something I had been dreading to look for. Dean Tarrant! He had reached the fence and unlatched the gate and was striding across the field, rage in every movement of his body. Toward him full blast went Prestpsler, pursuing his erratic discovery. Too late he discovered Tarrant. He tried to put on the brakes. There was a collision and both fell in a scramble to the ground. I started toward the disturbance, sick at my stomach. Tarrant flounced to his feet, his trembling hands dusting off his clothes. I heard Prestpsler's scream.

"He's sitting on your neck!"

He leaped for Tarrant and practically climbed up the dean's stalwart figure and down the other side. I came up just in time to pick Prestpsler up and wait for the storm to break. One of the watching students let out a loud,

sudden guffaw of mirth, and then switched it off as Tarrant turned around, spluttering.

Then something seemed to happen to the dean. His face had been scarlet with rage and mortification, his body shaking. Suddenly that was gone, and he went rigid. His face turned hard and cold. I got one look at his eyes. They were narrowed, brittle with the cold ferocity of a ravening glacier. He took three steps toward the petrified students.

He whispered, "Who laughed?" When nobody answered he roared it out. But naturally, those students weren't going to snitch on each other. They looked at me hopefully, genuinely frightened by the dean's manner. But I gulped and guessed that this situation was out of my hands. The quiet-spoken, if at times sarcastic dean, was not to be found in the malevolent man who seemed to be taking his place. Privately, I knew the situation didn't call for this much temper.

"Very well," whispered Tarrant, and his lips curled up on one side—a half grin, half sneer. "I will suppose all of you who did not laugh as accomplices to him who did, and therefore will draw up immediate papers for expulsion." He waved one violent arm and roared, "All of you—expelled!"

Then I got into it. "But you can't, sir! Not just because—"

HE WHIRLED on me, transfixing me with sheer, uncalled-for malevolence. "Shut up, Harrington, or you'll get yourself mixed up in this. Apparently, you're an accomplice of Professor Prestpsler's. Be satisfied that I let you off easily." Then he made a slow turn of his head toward the cause of everything. Prestpsler was looking back at him, stooped a little, his eyes wide and fixed on the dean's forehead.

"It was there—then it wasn't," he whispered. Suddenly he straightened, and his mouth formed a round "O" of discovery. He took two steps toward the dean.

To my amazement, a look almost of fright grew in the dean's eyes. Then his arm came up and he pointed and said in a thin, sharp voice, "Professor Prestpsler, you will turn your class over to Professor Jung this afternoon. We'll have no butterfly chasers on this campus!"

Then he turned and marched through the gate and onto the commons. Something strange happened as all fourteen of us stared after him. Six students were waiting for him in a body. As he came up, they fell in behind him, almost in military formation, except that every other second or so one, for some reason or other fell out, turned a complete circle around the group, and then fell in again.

As they marched out of sight into the Administration Building, Prestpsler turned to me. He was grinning, a wide-mouthed, wolfish grin.

"Very strange, eh, Bob?" he whispered softly. "Very strange!" Then he jerked my head down to his and whispered, "Bob, you keep your job at the university and whatever happens don't lose it! Observe what happens! Edgemont will be a testing ground that will save the world! And come to dinner tonight and tell me what happened."

My face fell. I said dolefully, "I can't. Susan has given me the bum's rush." I told him about Susan.

He stared. "What? She wouldn't read the funny papers?" Then he waved his hand at me in disbelief. "Tosh! Young girls are all crazy—she'll get over it, I'm_s—" Then he stopped. He frowned in speculation. "Crazy!" he muttered. "Crazy! Why certainly! Bob, this is more important

than I thought, and I must go and get my affairs cleared up. Perhaps—perhaps you'd better not come out to the house tonight after all. But mind you—let me know what goes on at the university!"

Then he trotted off, so excited about something that he left his butterfly net lying on the ground. I picked it up, and shaking my head, trudged toward the office.

NOTHING happened that afternoon, though, principally because I didn't see the dean. But in the morning, he entered the office, and threw down a list of names, and told me to draw up expulsion papers. I commenced to get hot under the collar, forgetting Prestpsler's instructions.

"You can't expel them simply because one of them laughed at you," I said heatedly. "The president of the university would laugh back at you."

Tarrant pursed his thin lips and studied me with narrowed eyes. "There'll be plenty of evidence against them and anybody else I choose to expel," he said tightly. He half turned toward the door, and Rod Williams, one of the football tackles, lounged in, grinning with one side of his mouth.

"Listen, Harrington," he said, "don't get tough. Do what the dean says."

I thought he was kidding. "You dumb fool," I snapped, "three of those students are on the football team!"

"So?" he said. "So? So?"

Dean Tarrant smiled nastily. "Rod Williams found those three students violating—ah—campus regulations."

"Ah—girls," said Rod, smirking. Then he scowled, lit a cigarette, stuck the match in his mouth, threw the cigarette away, pulled his hair down over his forehead, and stalked from the office.

Dean Tarrant said, "Attaboy!" and went into his own office, only to stick his head out a second later and say, "Wonderful weather we're having."

Something started crawling on my spine, and I must have turned pale as death. It was impossible! It was crazy! It was fact! I scooped up the phone with a shaking hand, and dialed Prestpsler.

Susan answered. "Whoever it is, I don't want to talk," she said.

"Susan," I quavered, "this is Bob."

"Hi, Boob," she said. "Sic."

"Sick?" I yelled, and a great light dawned on me. "Honey, I knew there was something wrong with you the minute you refused to read those funny papers—"

The receiver banged down. I dialed again, frantically. The phone rang and rang. Finally Prestpsler answered. I started jabbering.

He seemed surprised. "Well," he said, cautiously, "of course Susan isn't sick."

"She hung up on me!" I wailed.

Prestpsler sighed, and evidently decided it was nothing for him. He said, with sudden eagerness, "What happened?"

I told him.

His answering voice was shocked, but held satisfaction. "It tallies with the facts," he said dolefully. "My, but this is a most difficult situation, Bob. Did you read the papers this morning? Murders and mayhems and international violations and arson. I've never seen the like." His voice sharpened: "Now you stay there, Bob, you hear? In about a week, I think you and I are going to go butterfly chasing. We'll save the world!" he ended up jubilantly.

He hung up, and I stared at the receiver as if the world had just ended. We were going to go butterfly chasing—and save the world. . . .

I groaned, and with shaking fingers started to make out expulsion papers.

DURING the week that followed, the real plight of the world at large must have escaped me. I was too deep in troubles of my own. I had three telephone conversations with Susan, which ended disastrously. Apparently she had made up her mind we were through, washed up. And whenever I talked about it with Prestpsler, trying to get some clue to the difficulty, he evaded me by demanding how things were going at the university.

I told him of three professional resignations which Tarrant had demanded, with no apparent reason. And Tarrant had apparently neglected to find substitutes for those courses, with the result that three classes of students found themselves free to throw paper wads, pencils and erasers as they pleased. Furthermore, there was a group of six students, the same six, who were terrorizing more frailly built ones.

"Fine, fine," chortled Prestpsler. "An excellent testing ground, most excellent! Now, Bob, I feel that you had better come out to the house tonight and we'll lay our plans. My butterfly net is practically finished."

"Butterfly ne—" I yelped, but the exclamation dribbled away, and I said weakly, "What about Susan?"

"Susan? Susan? Oh," said Prestpsler casually, "they will come this afternoon to take her away. Now you be sure to drop into the house tonight, Bob!"

I was on my feet. "They? They've come to take her away?"

But Prestpsler had hung up. The receiver dropped from my hand and I felt as if I were going to faint. Suddenly I picked up my hat and ran for the door. I ran square into Rod Williams.

"Well!" he said. "Well!" He put his hammy fist against my chest and pushed once and I went slamming back against the wall. His jaw jutted out. "Stay where you are, little boy, or I shall tackle you."

He stooped, with an imaginary ball tucked against his chest, made some hopping motions, and then threw the imaginary ball through the window.

Dean Tarrant came in behind him. He saw me, spread-eagled against the wall. He shook his head, and made a "tsk" ing sound.

Rod Williams straightened, his eye on the ball, following its imaginary arc. He said, "Mr. Harrington was talking to Professor Prestpsler!"

Dean Tarrant turned slowly around, looking at me with pale, cold eyes. "The butterfly chaser! What did he say?"

HE TOOK one step toward me. So did Rod Williams. They lowered over me, and I would have considered myself senseless if I didn't see the threat in their faces. I huddled back against the wall, but my muscles tensed.

"None of your business," I said flatly.

Tarrant looked at Rod.

Tarrant said softly. "He's dangerous, isn't he? He and Prestpsler."

"Very dangerous," said Rod, still looking at me.

Suddenly he lunged forward, grabbed my arm and began to twist it, and his nastily grinning face leered into mine. I countered instinctively by knocking his extended left leg from under him, and clipping him across the right side of his neck with my left arm. He went through an arc and crashed on the floor and I fell on top of him. I wrenched free, stepped on his face and turned just in time to see Dean Tarrant come at me. I kicked him in the chest and he went back and I went out the

door.

Thirty minutes later, I was in Edgemont, the town outside the University, and Professor Prestpsler was letting me into the house.

"Where's Susan?" I panted, looking wildly around. Chaos met my eyes. Somebody had taken an axe to all the hall furniture—frightfully old period stuff that I knew Susan had never liked. Something caved in—inside of me. Who were *they*?

Prestpsler looked concerned as I started to babble at him.

"*They* took Susan," he said. He waved his hand around vaguely at the damage. "I thought it best," he added hopefully. Then he saw that something had happened, and without further reference to Susan, pumped the story out of me.

He nodded his head, in satisfaction. "But I think perhaps we'd better act now. I'll wire the *Clarion* and ask them to send a reporter out for an exclusive story. It will be a real scoop for them—if my plan clears up the trouble at Edgemont, then later on it can be applied to the rest of the world."

He made his phone call, while I walked around the hall, vaguely touching the ruined furniture. Then he went downstairs, and came up carrying a long aluminum rod from which trailed an extension cord attached to a belt which he had looped right around his swallow tail coat. The belt was studded with a number of small batteries hooked in series.

Prestpsler patted the rod. "My butterfly net," he said proudly and then went for the door. We got into my coupe, and fifteen minutes later had picked up a dubious reporter from the *Clarion* offices.

"WHAT'S up?" said the reporter. "We're going to chase butter-

flies," I said hollowly.

"Oh? And where's the net?"

Prestpsler held up the rod and smiled brightly.

The reporter said, "Oh?" and edged ominously into a corner of the seat, watching us through narrowed eyes.

Prestpsler continued, his voice slightly reproving. "I confess I do not expect you to believe me, sir, but the fact remains that unbeknownst to its inhabitants, the planet Earth has suffered an invasion of other-wordly creatures. That invasion is now complete, but it will have a spreading effect. Now—ah—young man, tell me what you know of the latest news."

The reporter—Brad Stakes his name was—regarded him with the sickly smile of someone who's had a practical joke pulled on him. He said over-politely.

"A few murders—arson—and they say the President has had a stroke and is confined to his room."

"Hah!" said Prestpsler. "A stroke! Fine! Wonderful! So—he's confined—well!"

Stakes said acidly, "That's a hell of a thing to get happy about. Say, would you mind letting me in on this?"

Prestpsler said with some heat, "I just did. The president's condition, and indeed all his inexplicable actions and those of other people the world over, is a direct result of this invasion from space! Now, young man, since you apparently don't believe me, we shall wait until I can show some definite proof. Faster, please, Bob!"

I stepped up the speed, although I was afraid my nerves were so bad I'd run the car off the road. I couldn't get my mind off Susan, and who *they* were, and where *they* had taken her.

I drove the car up to the side of the Administration Building and got out shakily. The other two joined me.

Stakes' big jaw was pugnacious and grim. I could tell he was just waiting for the joke to break.

Prestpsler took a few bird-like glances from side to side. The campus was quiet, only a few students out of classes. Prestpsler minced forward onto the path, waving us after him imperatively.

WE stood on the path, facing the steps of the Administration Building. Then I stiffened. I pointed and quavered, "There! Coming out of the Administration Building."

Brad Stakes squinted through cynical eyes. "So?" he growled. "A half dozen students—"

Prestpsler let out a strangled squawk. "Here they come! They're after us! At them, Bob, at them!"

Waving his aluminum rod over his head, he dashed straight for the six students hurrying grimly toward us down the walk.

I grabbed Stakes' arm. He heaved a bitter sigh, started after me dubiously, with a lumbering trot that soon turned into a full-fledged gallop as he made up his mind that maybe we knew what we were about. I didn't. I was scared stiff and I was afraid we were running into the face of another mass murder.

A strange thing happened. As the six students, Rod Williams in the lead, converged on Prestpsler, he held the rod straight out in front of him. They stopped abruptly. One or two dropped back, with looks of stunned fear.

Prestpsler's shrill laugh sounded as we came up. "They're afraid! Grab one, Bob! Just one!"

"Come on, Stakes," I muttered. I dove headlong at a pair of legs. The student crashed. Stakes got hold of another one and pinned his arms behind his back.

"Hold 'em," cried the professor. He

stepped up to Stakes' man. But I was so busy holding mine, I didn't see what happened. I heard a brief popping explosion. Then Prestpsler stood over my struggling, terrified captive. He swished the rod so that it missed the student's nose by a quarter of an inch. The student let out a long sigh and his eyes closed and he went limp.

I jumped to my feet just in time to hear the same tiny explosion. Prestpsler's eyes sparkled with elation.

"Did you see it? It works! Now for the rest of them!"

The rest of them were dashing back into the Administration Building. Prestpsler took off, yelling for us to follow. He charged into the building and we were clattering down the marble corridor toward the dean's office. The door was closed. We heard a swift flurry of panic-stricken voices. Brad Stakes gave the professor one inscrutable look and put his shoulder against the door.

He said "Ugh!" and the door caved in.

DEAN TARRANT was standing there, his five stalwarts behind him. He had a gun in his hand, a blend of malevolence and sheer terror shining from his eyes. I threw myself through the air before I had time to think. The gun spoke. Tarrant came down on top of me. Prestpsler surged forward with a yell. While I held the wildly threshing dean, I heard his "net" swish back and forth a half dozen times. I heard the same popping sounds five times. Then Prestpsler's charged voice, "Hold him, Bob!"

He stooped over Tarrant, his eyes alight with savage fire. Tarrant cringed and struggled all the harder. But Prestpsler swung the rod. As Tarrant saw it coming, his eyes distended and his mouth opened to emit a great, spine-

tingling roar. The rod swept past his nose. Tarrant slumped writhed a bit, and his head dropped back. I got shakily to my feet.

Brad Stakes' broad face had gone gray. He stared at the tip of the rod. "What in—" he whispered.

Prestpsler panted, "It was in the dean's head. A butterfly. One of the invaders. A creature made of electricity held together by some highly evolved life principle!" With a sort of sadism, he watched the glowing "butterfly" moving crazily around at the tip of the rod, apparently attempting to escape from an invisible trap. I saw now that it didn't really have wings. The brilliant haze around it could have contributed to the illusion that it did.

Brad Stakes pulled himself together slowly. He hauled out a notebook and pencil and commenced to scribble. "Invaders from space—creatures of electricity—not impeded by material substance—" His writing hand went faster and faster. When he looked up, his cheeks were flushed. "I get it," he said jerkily. "The president—the murders—the unbelievable things that have been happening all over the world—an invasion from space. Holy Cow, I've got a story. Professor invents electrical net to catch electrical butterfly—which melts through victim's skull, controlling his moods, his actions, his whole personality—electric net is a sort of hemispherical force field which you run through victim's head and drag out the butterfly. The frequency of the net is shorter than the electrical frequency of the invaders, therefore they can't escape. Is that it?"

"Approximately," said Prestpsler cautiously. "Yes" write it up like that. Then another operation of the—ah—net completes the sphere and the creature is trapped. An interfering vibration is set up in the trap, then, and

the creature is canceled out. Like this."

He pressed a button midway up the rod. The pulsing creature suddenly swelled to twice its size and exploded with a burst of light.

"Swell! Man, this will burn up the headlines. But professor," said Stakes, with a dawning light in his eyes, "if you, or somebody, could drag a butterfly out of the President's head, you could convince him to manufacture more of those rods—you could wipe the invaders out. Say, I have to make the next edition!"

HE stuffed his pad in his pocket and took the professor's arm and hustled him out. I took one look at the dean and the five students. They were commencing to stir and mumble. I felt something squirming in my stomach and I fled, afraid I was going to be sick. We got in the car and started toward Edgemont. I was sick anyway. Sick with fear for Susan, of what had happened to her, but lacking the courage to ask Prestpsler.

Prestpsler explained while I drove. "It tallies most beautifully. The brain is electrical in nature. When at rest, it has a steady electrical beat which can be registered on sensitive instruments—the alpha vibrations, they are called. The beta, more unsteady vibrations, are given off when the brain is working. There are also the delta vibrations. These are the fundamental, normal vibrations of the brain."

"Fundamental rhythms," said Stakes. "Go on!"

Prestpsler's veined hands rubbed together in satisfaction. "The important part is that there are any number of rhythms each of which corresponds to certain brain diseases. Sometimes diagnoses can be made on that basis. A certain rhythm means a certain type

of insanity. So all these creatures had to do was to pulsate a certain rhythm which was identical to that of a mental disease. Therefore — " he grinned wolfishly, enjoying the effect of that statement on the reporter "—in the case of Dean Tarrant and thousands of others, it was the rhythm which caused the disease, not the other way around—homicidal mania, for instance."

Brad Stakes said softly, "Holy Cow!"

A grin tugged at Prestpsler's lips. "I imagine," he said, "that Dean Tarrant will hardly object to my adding to my butterfly collection after this."

I broke in finally. "Professor, about Sus—"

Quick sympathy showed in his eyes. "It's all right. I merely sent her out to the county jail. She was—ah—well, I thought it best." He stopped hopefully.

I put the brakes on with a savage motion. "Professor, let me have that net and belt. Stakes, you drive—the county jail, quick!"

While I was feverishly buckling on the belt, Brad Stakes scribbled. What was their idea? To wipe the human race out, to conquer the world, or just to have fun?"

Prestpsler rubbed slowly at his stubbled chin. He raised his eyes, as if to guess from what unreachable distance the energy creatures had come. He sighed. "No, it wasn't any of those. The creatures were highly evolved forms of life, but they seemed far more senseless even than butterflies. I must,

I can draw only one conclusion. They themselves were — insane. Yes," he whispered sadly, "Absolutely, plumb crazy. . . ."

BRAD STAKES stopped the car at the county jail. I got out. The car roared away again. Stakes had his plans all made. The printing of the story would be the first step in a campaign to have thousands more of the nets made; to begin the process of wiping out the invaders altogether. But I wasn't thinking of that. I was thinking of Susan. And as the jail keeper walked away down the corridor, keys jingling, Susan stood in the cell looking at me, eyes sparking malevolently.

"Well!" she said. "If it isn't the Katzenjammer Kids and the Little Hitchhiker! Nov shmoz ka pop?"

"Nov shmoz ka pop," I agreed. Then I pressed the stud of the aluminum rod, brought it over my head and ran the electric net through her head.

Out came a madly pulsing electrical butterfly. I pressed another stud and trapped it. Then I vengefully exploded it.

I jumped forward just in time and caught Susan and held her in my arms. I was shaking and sweating. But it was a relief to see her unconscious features relaxed and back to normal again. Five minutes later her eyes opened, and she looked around the dingy cell. And I could tell from her expression that she was wondering what on Earth I'd done now that they should put me in a place like this!

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AMAZING & FANTASTIC (1964-1969). *All issues of S. F. GREATS, MOST THRILLING S.F., SCIENCE FICTION CLASSICS, STRANGE FANTASY, SPACE ADVENTURES, SCIENCE FANTASY ADVENTURES YEARBOOK 1970, SCIENCE FICTION CLASSICS YEARBOOK-1970.* (50¢ each). **ULTIMATE PUB. CO., BOX 7, OAKLAND GDNS., FLUSHING, N.Y. 11364.**

Literary Swordsmen & Sorcerers

eldritch yankee gentleman part one

Howard Phillips Lovecraft (1890-1937) merits attention in any study of heroic fantasy, aside from his own modest contributions to the genre, because of his influence on other fantasy writers and because of his singular personality. He was the greatest bundle of contradictions imaginable. *Exempli gratia*:

He condemned poses and affectations but was himself the prince of poseurs, affecting the attitudes, language, and even spelling ("publick," "shoar," "ask'd") of an eighteenth-century English Tory, or at least of a colonial loyalist. Once he visited the monument in Lexington, Massachusetts, to the first colonials to fall in the Revolution. When asked if he had gotten an emotional reaction, he replied:

"I certainly did! I drew myself up and cried in a loud voice: 'Thus perish all enemies and traitors to His lawful Majesty, King George the Third!'"

He detested tobacco and liquor, although his experience with them was trivial. But the life he led in Providence must have been harder on his health than moderate smoking and drinking. He went out usually at night and ate so spare and unbalanced a diet, even when he could afford better, that, although over 5 feet 10, he weighed around 140 pounds. When he married Sonia Greene and moved to Brooklyn, she fed him up to a normal weight and got him to exercise. When he fled back to Providence, however, he soon

restored his self-image as a gaunt, pallid recluse.

He abhorred sexual irregularities and deviations, yet his own approach to sex was so prissy and inhibited as to make some wonder whether he, too, had a touch of lavender. While he loved Sonia, the one really great love affair of his life was with Providence. It was, moreover, with the material city, not with the people, for whom he cared little and few of whom knew he existed.

A thorough materialist, he had a good knowledge of the sciences and a profound respect for the scientific method. Yet he was full of pseudo-scientific racial theories, notably Aryanism or Nordicism. He rhapsodized on "the lusty battle-cry of a blue-eyed, blond-bearded warrior," although he himself was utterly unlike a stalwart Viking marauder.

He despised "the herd" or "the masses," denounced democracy, apologized for Mussolini and Hitler, and wrote: "We are proud to be definitely reactionary,"² albeit he would have been given short shrift by a Fascist regime. But, later, he became a mild socialist and an admirer of Franklin D. Roosevelt.

He wrote: "... my hatred of the human animal mounts by leaps and bounds the more I see of the damned vermin,"³ yet all his friends described him as one of the kindest and most generous and unselfish persons they had known.

Until his last few years, he was ethnocentric to the point of mania. In the abstract, he hated all ethnics, especially Jews, Latins, and Slavs—"A bastard mass of stewing mongrel flesh," "twisted ratlike vermin from the ghetto," "rat-faced, beady-eyed oriental mongrels." The "sì-mian Portuguese, unspeakable Southern Italians, and jabbering French Canadians," together with Negroes, Mexican-Americans, Chinese, and Japanese, also take their lumps. He regularly used the ethnic pejoratives "nigger" and "Dago." When he was rooming alone in Brooklyn and learned that his next-door neighbor was a Syrian, his reaction was like that of a man who discovers a rattlesnake in his bathtub. Yet, when he came to know members of these ethnai personally, he proved just as kind, friendly, generous, and affectionate towards them as he did towards "Aryans."

He gave good advice on literary matters but often failed to take it himself. Thus he avoided submitting stories to science-fiction magazines other than *Weird Tales*, although they paid better, because he deemed them too "commercial" and feared harming his self-image as a gentlemanly amateur.

H.P.L. (as he often signed his letters) was born and lived his first thirty years on Angell Street, Providence, Rhode Island. A blunt peninsula, formed by the junction of the Providence and Seekonk rivers, rises to the prominent College Hill, the summit of which is occupied by Brown University. All Lovecraft's homes in Providence were on the slopes of College Hill, where most houses are wooden frame nineteenth-century buildings.

Although Lovecraft recalled his childhood as happy, he had a bad start. His father, Winfield Scott Lovecraft, was a traveling salesman of English parentage. When young Lovecraft was three years old, Winfield Lovecraft was committed to

the care of a guardian, then to a mental home, and died of paresis in 1899.

Lovecraft's mother, Sarah Susan Phillips Lovecraft, moved with her son to the house of her father, Whipple V. Phillips, at 454 Angell Street. Phillips was a cultivated and fairly successful businessman. Here young Lovecraft had the run of a big library, heard ghost stories from his grandfather, and sat on Oliver Wendell Holmes's knee when the great man came to call. Lovecraft showed great precocity, learning his letters at two and reading at four.

Lovecraft's mother was a neurotic who smothered her son with protection. When he rode his tricycle, she walked alongside holding him lest he fall. She thought he was a genius—which may have been true—but also that he was destined to be a great poet or a great musician, neither of which he was. Violin lessons, begun at seven, ended two years later when Lovecraft balked at practise, and classical music remained a lifelong blind spot.

Lovecraft attended school for a year or two but was then removed on grounds of health. For several years, he was intermittently tutored, while educating himself by wide reading and dabbling in astronomy and chemistry. His memory was phenomenal. If asked about a gathering he had attended years before, he could tell just when and where it had taken place, who was there, and what was said. Although he claimed to be a poor linguist, he got a good knowledge of several tongues, his best being Latin.

He had little human contact outside his family. He said: "Amongst my few playmates I was very unpopular, since I would insist upon playing out events in history, or acting according to consistent plots . . . The children I knew disliked me, and I disliked them." On the other hand, his reclusive life seems to have spared him the bullying that is the lot of most frail and

precociously intellectual boys.

Never convinced by Christian doctrines, Lovecraft became a devotee of Graeco-Roman lore, half believed its mythology, and "would actually look for fauns and dryads in certain oaken groves at twilight . . ." Soon he became and remained a nontheistic agnostic.

In 1904, Lovecraft's grandfather died, leaving to his three daughters a modest legacy that would see them through life only by careful economy. Lovecraft and his mother moved to a smaller house. Tutors no longer being afforded, Lovecraft attended high school, 1904-08. Upon graduation he would normally have gone to Brown; but he suffered a nervous or physical breakdown of some sort which washed out his college career.

For the next decade, Lovecraft lived at home, did no gainful work, read voraciously, became active in amateur journalism, and wrote long letters to a circle of friends. He collected guns, nearly all of which he later gave away. He formed the habit of taking long walks in the country, until in his thirties he could cover ten miles in a day without fatigue. He was rarely seen in Providence in daytime but often prowled its streets at night.

Oppressed by a feeling of uselessness, he made one effort to escape his mother's coddling. In May, 1917, during the Kaiserian War, he applied for enlistment in the National Guard. He passed the cursory examination and was accepted as a private in the Coast Artillery. When his mother heard, she "was almost prostrated with the news." There were scenes, and in the end she and the family physician persuaded the army to annul the enlistment. When conscription loomed, he wrote: "My mother has threatened to go to any lengths, legal or otherwise, if I do not reveal all the ills which unfit me for the army." None knows how many of these ills were genuine and how many were

invented by Lovecraft's mother and foisted upon the unfortunate youth.

How an actual enlistment would have worked is also unknown. As Lovecraft wrote: "It would either have killed me or cured me." He suffered real psychosomatic ills, but some good soldiers have been made of equally unlikely material. As it was, poor Lovecraft was left feeling more "useless" and "desolate and lonely" than ever.

In his twenties, Lovecraft looked much as he did through life. He was a fraction of an inch under five feet eleven, with broad but stooped shoulders, and lean to gauntness. He had dark eyes and hair (which later turned mousey gray) and a long face with an aquiline nose. His salient feature was a very long chin—a "lantern jaw"—below a small, pursed-up mouth, which gave him a prim look. As a devotee of the baroque era, he disliked facial hair.

Although his mother sometimes called him ugly, he was actually rather good-looking in a bony way. His skin was pale from nocturnal habits. An acquaintance reported: "... he never liked to tan, and a trace of color in his cheeks seemed somehow to be a source of annoyance." In dress he was clean and neat but preferred old clothes to new. In youth he affected an old-fashioned appearance, with high-buttoned shoes and starched wing collars, but in time gave up these affectations.

His voice was high and rather harsh. When excited, he stuttered. When affecting his eighteenth-century pose, he used archaic pronunciations like "me" for "my" and "sarvent" for "servant."

A shy man, he practised a gentlemanly reserve and imperturbability and thought of himself as a kind of disembodied intellect, unswayed by human passions. Later, he showed that inside the old Lovecraft a quite different one had been struggling to get out: gregarious, garrulous,

charming, warm-hearted, and physically active. This Lovecraft did succeed in emerging, but only partway.

Lovecraft's physical state is a puzzle. He believed himself a frail, nervous creature; yet the doctors could find nothing definitely wrong, and he looked normal. He wrote:

If you received G. J. Houtain's Zenith you will see how I impress a stranger—as a husky, pampered hypochondriac, tied down to indolence by indulgent relatives, and by false notions of heredity. If Houtain knew how constant are my struggles against the devastating headaches, dizzy spells, and spells of poor concentrating power which hedge me on all sides, and how feverishly I try to utilize every available moment for work, he would be less confident in classifying my ills as imaginary.

The term "psychosomatic illness" had not yet come into wide use, but Lovecraft grasped the concept. His most marked frailty was hypersensitivity to cold, apparently an allergic reaction. At 90° F he felt fine; in winter in Providence, he kept the house heated into the eighties. Below 80°, he became increasingly unhappy; at 70° he was stiff, sniffing, and gasping. One evening he went out on an errand of mercy in Providence. The temperature, 60° when he left, soon dropped to 30°. Lovecraft collapsed and was carried unconscious into a drug store, where a passing physician revived him.

One would have expected him to move to a warmer clime. In late years he spoke of removing to Charleston, South Carolina; but he never did. New England winters being what they are, Lovecraft spent half of each year a virtual prisoner in his house, stirring abroad no more than he had to.

Lovecraft's sensitivity to cold was aggravated by his diet. His tastes were highly idiosyncratic, probably as a result of his mother's letting him eat whatever he pleased as a child. He abhorred milk, fat, and sea food but had a passion for cheese, chocolate candy, coffee saturated with sugar, highly spiced curry, and ice cream. In 1927, he and his friends Wandrei and Morton stopped at a place that advertized thirty-two flavors of ice cream.

"Are they all available?" asked Lovecraft.

"No," said the waiter, "only twenty-eight today, sir."

"Ah, the decay of modern commercial institutions!" sighed Lovecraft. Each of the three ordered a double portion in a different flavor and traded parts of his serving with the others, so that each got three flavors with each serving. Wandrei soon dropped out, but Morton and Lovecraft continued through the whole twenty-eight flavors, consuming more than two quarts apiece.

Lovecraft's dislike of sea food has been connected with a fear and dislike of the sea, which he often used as a symbol of evil, along with cold, wet, and darkness, in his stories. He told Wandrei: "I have hated fish and feared the sea and everything connected with it since I was two years old."⁸ But this cannot be taken too seriously, since he spent his life in and did most of his traveling to seaports.

Towards food in general, Lovecraft was indifferent, despising gourmanderie and priding himself on the cheapest and sparest diet that would sustain life. He thought his brain worked better when slightly starved. Late in life he wrote: "Fortunately I have reduced the matter of frugal living to a science, so that I can get by on as little as \$1.75 a week by purchasing beans or spaghetti in cans and cookies or crackers in boxes."⁹

He experienced vivid dreams and nightmares, some of which he described in his letters or exploited in his stories. He disliked dogs but loved cats. When he visited a friend and a kitten climbed into his lap and went to sleep, he sat up all night rather than disturb the creature.

He doted on eighteenth-century England and, next in order, on classical Rome. He wrote: "I would actually feel more at home in a silver button'd coat, velvet small-clothes, wig, steenkirk cravat, and all that goes with such an outfit from sword to snuffbox, than in the plain modern garb that good sense bids me to wear in this prosaick *aera*."¹⁰

Along with his passion for the baroque age went his love of the oldest parts of Providence, where traces of this "*aera*" lingered. A cause of his Old American chauvinism was the fact that immigrants had occupied run-down sections of Providence and wrought changes there. He so opposed change that he wrote to the Providence *Journal* denouncing a proposal to tear down some old warehouses. Lovecraft suffered from "future shock" long before Dr. Alvin Toffler made up the term.

Another source of Lovecraft's xenophobia was the pseudo-scientific Nordicism current in the USA during the first quarter of this century. It started with a French diplomat, the Comte de Gobineau, who in the 1850's wrote a book to prove that the tall, blond, blue-eyed type of northern Europe—the "Nordic"—was superior to all the lesser breeds of man. Gobineau deemed himself to belong to this type, which, as the Germanic Franks, had conquered Gaul around AD 500 and made themselves the French aristocracy. He averred that France had ruined herself by destroying or exiling these "best people" in the Revolution.

Gobineau attracted many followers, all believing themselves Nordics, since nobody

has ever written a book to prove his own ethnos inferior. Among these was Houston Stewart Chamberlain (1855-1926). The son of a British admiral, Chamberlain was educated in Switzerland and Germany. He became a permanent German resident and citizen and a son-in-law of Richard Wagner. In 1899 he published a huge book, which in 1912 was translated under the title, *Foundations of the Nineteenth Century*.

Foundations is a windy, rambling, tententious, verbalistic, subjective, and wholly worthless work, on a par with Churchward's *Mu* books or Mme. Blavatsky's *Secret Doctrine*. The author undertakes to prove the superiority of the "Teutonic Aryan" by a perfectly circular argument: Any historical character he likes, such as King David, Julius Caesar, or Jesus, is proved a Teutonic Aryan by his superior qualities, and the virtues of all these Teutons prove Aryan preëminence. Dante's "noble countenance" shows that he, too, must have been a Teuton. While "mixtures," like the Germans, are good, "mongrels," like the Jews, are bad, and one tells the difference by "spiritual divination." If science disagrees, so much the worse for science: "What is clear to every eye suffices, if not for science, at least for life . . . One of the most fatal errors of our time is that which impels us to give too great weight in our judgments to the so-called 'results' of science."¹¹

Chamberlain was followed in the USA by Madison Grant (*The Passing of the Great Race*, 1916) and Lothrop Stoddard (*The Rising Tide of Color Against White World Supremacy*, 1920). These amateur ethnologists eloquently but unscientifically argued that the purity of the Nordic race must be guarded against dilution, lest civilization, whereof the Nordic was the author and prime mover, perish from the earth. These arguments influenced the

immigration law of 1924. The anti-scientific Franco-British Catholic writer Hilaire Belloc satirized them:

Behold, my child, the Nordic man
And be as like him as you can;
His legs are long, his mind is slow,
His hair is lank, and made of tow.

And here we have the Alpine race:
Oh! What a broad and foolish face!
His skin is of a dirty yellow.
He is a most unpleasant fellow.

The most degraded of them all
Mediterranean we call.
His hair is crisp, and even curls,
And he is saucy with the girls.¹²

From resemblances in their phraseology, I am convinced that Lovecraft read Chamberlain's *Foundations* and swallowed its contentions whole. In 1915, three years after *Foundations* appeared, Lovecraft wrote: "Science shows us the infinite superiority of the Teutonic Aryan over all others."¹³ He also, probably, read Grant or Stoddard when they appeared, and he began venomously disparaging non-Nordics. In a letter on the Jews, he reversed the usual argument for tolerance:

Nothing is more foolish than the smug platitude of the idealistic social worker who tells us that we ought to excuse the Jew's repulsive psychology because we, by persecuting him, are in a measure responsible for it. This is damned piffle . . . We despise the Jew not only because of the stigmata which our persecution has produced, but because of the deficient stamina . . . on his part which has permitted us to persecute him at all! Does anyone fancy for a moment that a Nordic race could be knocked about for two millennia by its neighbours?

God! They'd either die fighting to the last man, or rise up and wipe out their would-be persecutors off the face of the earth! ! It's because the Jews have allowed themselves to fill a football's role that we instinctively hate them. Note how much greater is our respect for their fellow-Semites, the Arabs, who have the high heart—shewn in courage . . . —which we emotionally understand and approve.¹⁴

Had Lovecraft lived to witness the Arab-Israeli wars of 1948-67, he might have found the experience educational.

Today, such opinions would place a man in the right-wing lunatic fringe—although the New Left has lately begun making similar noises about "Zionist imperialists." When Lovecraft began voicing such opinions, in the 1910s, they were widespread and respectable, especially among Old Americans of Lovecraft's generation—born before 1900. They no more showed Lovecraft a monster than would a medieval Christian's belief in witchcraft.

Most writers are, in my observation, less ethnocentric than the masses, because their reading has exposed them to many points of view. This is true *a fortiori* of science-fiction writers. After one has coped with the problem of the spider-men of Sirius, no human being seems alien. Lovecraft, however, continued to write in this xenophobic vein for twenty years, long after most American intellectuals had abandoned this viewpoint. Not till the last decade of his life did he considerably change his views. Next issue, I shall offer some possible reasons for his attitudes.

Otherwise, Lovecraft was a thorough puritan. He castigated his friend Cook for publishing a harmless story about an artist's model who posed in the nude: "a horrifying example of decadence in

thought and morals." As Lovecraft aged, however, while he maintained the same austere standards for himself, he became tolerant of others' deviations from them. He became "convinced that the erotic instinct is in the majority of mankind far stronger than I could ever imagine . . ." and that laws and customs would have to be adjusted accordingly.

Likewise, he turned against Prohibition, not because he had taken to drink himself but because he saw that it was unworkable. The only time he is known to have drunk anything alcoholic was at a party in New York, when his host spiked his ginger ale. Lovecraft became the life of the party, talking a streak, laughing, joking, and singing. He never learned what had befallen him.

As a boy, Lovecraft composed detective and supernatural stories. Then his interests shifted to science, and for several years he issued a hectographed *Rhode Island Journal of Astronomy*. In 1908 he published a fantasy, "The Alchemist," in an amateur journal, *The United Amateur*.

During the next six years, Lovecraft discovered the hobby of amateur journalism, which had greatly expanded after 1900 with the development of the Mimeograph and Hectograph machines. Like science-fiction fans later, amateur journalists printed little magazines and circulated them through their organizations, as they still do. In 1914, the movement was sundered into the United Amateur Press Association and the National Amateur Press Association. The UAPA, also, was split into factions.

Lovecraft joined one faction of the UAPA and also the NAPA, served terms as president of both, and plunged into the politics of amateur journalism: He took this avocation seriously because it gave him a chance to exercise his literary bent

in a genteel, non-commercial manner. From 1914 to 1925, he published his own amateur paper, *The Conservative*. Thereafter, wearied of Byzantine politics and teapot tempests, he gave the movement less and less time.

Amateur journalism afforded Lovecraft new literary outlets; if he was not paid, at least he was printed. From 1915 to 1925, he had over a hundred articles and essays published in amateur periodicals. He also wrote much youthful poetry. Since, however, his models were Pope, Addison, and their baroque colleagues, his verse took the form of endless chains of rhyming couplets in iambic pentameter, which soon become unreadably dull.

In 1917, he began serious work in the field that was to bring him fame: weird fantasies. His short story "Dagon" was published in *The Vagrant* for November, 1918. A mere 2,300 words, it set the pattern for most of Lovecraft's later tales: a leisurely first-person narrative by a man who comes across some natural anomaly; a long, slow, moody buildup with little or no dialogue; the shattering discovery that the anomaly is real after all, leaving the narrator either facing death or broken in health and spirit.

"Dagon" tells of the narrator's capture by a German sea raider in the Kaiserian War, his escape in a lifeboat, and his grounding on a stretch of sea bottom suddenly raised above the surface. Floundering through mud and slime, he finds carvings of gigantic fish-men, one of whom emerges alive from the water. The narrator escapes and returns to civilization but remains obsessed by horror. The story ends: "The end is near. I hear a noise at the door, as of some immense slippery body lumbering against it. It shall not find me. God, *that hand!* The window! The window!"¹³

About the time "Dagon" was published,

Lovecraft heard a lecture by Lord Dunsany. Taken with Dunsany, Lovecraft hastened to read all the Irishman's works he could find. Dunsany and Poe were the strongest literary influences on him. He became a recognized Poe scholar and solved two problems in the interpretation of Poe's story, "The Fall of the House of Usher," and his poem *Ulalume*.¹⁶

Now Lovecraft began writing fiction regularly, although for several years his stories appeared only in the amateur press. During 1917-21 he turned out at least seventeen stories, albeit some were not published until years later.

Of Lovecraft's stories at this time, many showed Dunsanian influence. Lovecraft's stories fall into three groups: Dunsanian fantasies, stories of the Cthulhu Mythos (whereof more later), and other weird fantasies. Some stories are both Cthulhuvian and Dunsanian.

Most of Lovecraft's Dunsanian fantasies were written during this spurt of production, when Lovecraft was turning thirty. The purest otherworldly fantasies are "The Cats of Ulthar," "The Other Gods," "The Quest of Iranon," "The Doom that Came to Sarnath," and "Celephais." Other fantasies—"The Strange High House in the Mist" and "The White Ship"—are anchored in the here-and-now but soar off into Lovecraft's dream world of Ulthar beyond the river Skai.

Through his amateur journalism, Lovecraft met a number of would-be writers and poets who would pay him to revise their work. When given a story to edit, Lovecraft often rewrote the whole thing, using only a fraction of the original author's ideas. In other words, he became a ghost writer. His charges rose slowly from an eighth to a quarter of a cent a word, although in 1933 he was still rewriting an 80,000-word novel for a mere \$100.00. Since he was a painstaking worker, this was little

enough for the time spent. He could have made more had he haggled with and dunned his clients, but he would not behave in such an "ungentlemanly" way.

Still, ghost writing gave Lovecraft his first earned income. He later said he could get along on \$15.00 a week and only wished he could always be sure of making that much. Actually, he earned more than that in later years but saved the surplus for travel and for his huge consumption of postage. He was never in danger of starvation, since his aunts, with whom he lived after his mother's death, could always tide him over a lean spell.

Lovecraft's mother—a weepy, ineffectual, despairing sort of woman—went into a nervous decline early in 1919 and entered Butler Hospital, where she lingered for two years before dying. Lovecraft moved in with his widowed aunts, Mrs. Franklin C. Clark and Mrs. Edward F. Gamwell, at a wooden twin-duplex house at 10 Barnes Street. In 1920 he spent his first night away from home, at a gathering of amateur journalists in Boston. He was beginning to come a little out of his shell.

Lovecraft's substitute for a normal social life was letter writing. His epistolatory output was stupendous; he is thought to have written about 100,000 letters altogether. After he died, Derleth borrowed stacks of letters from many of Lovecraft's correspondents. When a sampling of these was transcribed, it came to 5,000 pages of single-spaced typing and will fill five volumes when the *Selected Letters* are all published. Clark Ashton Smith said his letters from Lovecraft averaged 40,000 words a year, and Lovecraft kept fifty to a hundred correspondences going at once. He spent about half his working hours on correspondence.

These letters are learned, fascinating, and—especially for one who prided himself on aristocratic reticence—very self-reveal-

ing. Nearly all are in longhand; Lovecraft hated typing. His handwriting is not illegible but still scribbly and hard to read.

The year 1921 saw Lovecraft's first commercial sales of fiction. George J. Houtain issued a magazine called *Home Brew*, for which he ordered some horror stories from Lovecraft. The latter wrote six melodramatic tales under the blanket title: *Herbert West—Reanimator*, whose protagonist is always getting in trouble by reviving corpses. Houtain printed the series but paid only for the first two.

These stories came to the attention of J. C. Henneberger, the publisher of the popular *College Humor*. When Henneberger launched *Weird Tales* in 1923, he asked Lovecraft for more stories. Lovecraft sent "Dagon," which had already appeared in *The Vagrant*. Edwin Baird, *Weird Tales's* first editor, bought the story, published it in the November, 1923 issue, and urged Lovecraft to send more.

During the three years that began with the appearance of "Dagon," Lovecraft appeared in half the issues of the magazine. Hence some have said that 1924-26 was Lovecraft's most productive period, but actually most of the stories published at this time were reprints from amateur periodicals. Lovecraft's true production was slow. From 1927 to 1933, he appeared in only about two issues a year of the magazine, not counting poems.

When Farnsworth Wright took over *Weird Tales* in 1924, he continued to buy from Lovecraft. He, however, treated Lovecraft's submissions erratically. Some stories that he rejected were later deemed among Lovecraft's best. Sometimes he turned down a story and then, months or years later, asked to see it again and sometimes bought it.

Lovecraft's production remained low, not only because he was a painstaking

worker who revised extensively and had little sense of time, but also because he deemed his main work to be ghost writing and composed his own fiction in his spare time, so to speak. Being a perfectionist, he was never satisfied, when he had finished a story, that he had achieved the effect he sought. He became discouraged and despondent, writing his friends that his work was "a failure" and that he was "finished for good."

Next issue: the conclusion of Eldritch Yankee Gentleman: the story of Lovecraft's marriage and later career.

Notes

1. *Fresco*, VIII, 3 (Spr. 1958), p. 3; address by Samuel Loveman to the Eastern Science Fiction Assn., Newark, N.J.

2. H. P. Lovecraft: *Selected Letters, 1911-1924* (Arkham House, 1965), pp. 208f. All quotations from Lovecraft's letters and stories are by permission of August Derleth.

3. *Ibid.*, p. 211.

4. H. P. Lovecraft: *Selected Letters, 1925-1929* (Arkham House, 1968), p. 109.

5. Lovecraft (1965), pp. 146, 49.

6. H. P. Lovecraft: *Beyond the Wall of Sleep* (Arkham House, 1943), p. 428.

7. Lovecraft (1965), p. 132.

8. H. P. Lovecraft: *Marginalia* (Arkham House, 1944), pp. 368, 364.

9. Unpublished letter to R. H. Barlow, 10 Apr. 1934.

10. Lovecraft (1944), p. 329.

11. H. S. Chamberlain: *Foundations of the Twentieth Century* (John Lane, 1912), I, p. 266.

12. Hilaire Belloc: *Short Talks with the Dead*, p. 253.

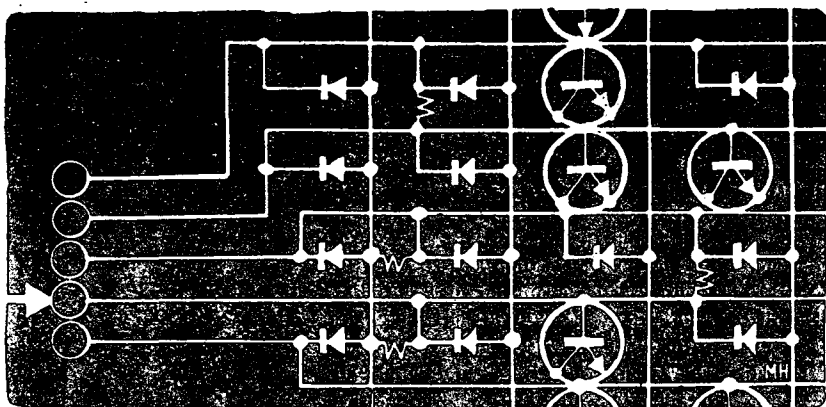
13. Lovecraft (1965), p. 17.

14. Lovecraft (1968), p. 66.

15. H. P. Lovecraft: *The Outsider and Others* (Arkham House, 1939).

16. *Fresco*, pp. 37ff.

—L. Sprague deCamp



Science Fiction in Dimension ♦♦

♦♦ a critical column by ALEXEI PANSKIN

A NEW PARADIGM: I

In this column and in the one to follow in the October issue of *FANTASTIC*, I am going to propose and discuss a new paradigm for the body of literature that we call "sf." The old paradigm by which we have understood that body of stories since 1929 is Gernsback's theory, "science fiction." Sf and science fiction are not the same thing. One is a set of facts and the other is an explanation of them.

A literary paradigm is a theoretical model, a framework placed around a body of work, an organization of perception. It suggests the *nature* of a genre and its *relationships* to earlier and other work, and defines its *limits and purposes*—all for the orientation and aid of a body of practitioners who need to know who they are, what they are doing, and what they can do. And it provides a *standard* by which the work they produce can be judged.

But art constantly makes itself new and paradigms are a framework. Their usefulness is limited. Art grows into our paradigms and then beyond them. When a paradigm is felt as a prison instead of a

playground, art—a living thing—has every business to replace it with a more useful alternative. Our old paradigm, science fiction, has become uncomfortably limiting for the art of sf. I want to replace it with a roomier paradigm—speculative fantasy.

This isn't a casual proposal. Like everybody since First Fandom, I grew up with the old paradigm as my axiom. Science fiction has been every bit as real to me as sf, and I have honored it as well. Science fiction set the terms in which I fashioned all the sf I wrote for fully nine years. A dip into my critical book, *Heinlein in Dimension*, written in 1965, will show that I accept the science fiction paradigm uncritically: "science" and "fiction" are the first two words of text and I didn't question them. I have believed.

In 1967, induced by a contract, I wrote a short and limited book on sf for a small publisher named Twayne. It was only of the length of my book on Heinlein or even a bit shorter, and it sketched the history and practice of American sf with emphasis on the present. The title was *Science Fic-*

tion: *A Critical Introduction* and it was to appear as an Area Study in the Twayne United States Authors Series. I thought of it as an updating of L. Sprague de Camp's *Science-Fiction Handbook* with more emphasis on criticism and nothing about how-to-write.

Twayne is best known to sf for the spate of books that it published in 1952 and 1953: much Pratt and de Camp, both alone and together, the Twayne Triplets, and the excellent anthology *Witches Three*. In more recent years, Twayne has been publishing a number of series of literary studies aimed at the college and library trade. My book was to be a volume in one of these series. However, it was not until about eight months later that I discovered that "Area Study" to Twayne meant "tie-up volume," and tie-up volume meant that not only did they not intend to publish the book until some future time when they had issued their study of the last unknown great of American letters, but also that they had not yet read the manuscript. I withdrew the book. This may have been a mistake. The book is still unpublished and Twayne, if left alone, might well have read the manuscript by now.

In November 1969, Ted White, who had read the manuscript before he became editor here and remembered it, suggested that he could use it as a column in *FANTASTIC*. All that I needed to do was to break it into column length pieces. I wish it had proved to be that easy; but before I began to publish it, there were two corrections that needed to be made in the original manuscript. One was a matter of scope. I had been writing for a United States Authors Series, and so I had only talked about American sf and American authors. Certainly Clarke, Aldiss, Brunner and Ballard deserve as much consideration as Anderson, Herbert, Heinlein and Dick. The other correction was a matter of definition. In *Science Fiction*:

A Critical Introduction, I had wrestled with the problem of defining science fiction and lost.

What I wrote in 1967 was this:

"The natural question, of course, is, 'What is science fiction?' I am sorry to say that I don't have a crisp, exact answer, and so far no one has proposed one that has gained general currency. Definitions never seem to fit the field exactly. Here is an example of a pretty good definition of the field by Robert Heinlein: 'Realistic speculation about possible future events, based solidly on adequate knowledge of the real world, past and present, and on a thorough understanding of the nature and significance of the scientific method.' Heinlein continues to say that this is a definition of almost all science fiction, and to make it complete we simply need to strike out the word 'future.'

"This is a pretty good definition, but it isn't good enough. It gives a fair notion, but that is all. If it restricts science fiction to stories about the future, it eliminates excellent books like Poul Anderson's *The High Crusade* which starts with aliens landing in medieval England. Without the restriction, the definition would include books that are not ordinarily thought to be science fiction, books about tomorrow's space launch from Cape Kennedy or medical novels like *Arrowsmith* that differ from the ordinary only in that the disease conquered is a hypothetical one. Finally, the definition calls for 'realistic speculation' and science fiction written to entertain or to satirize may well be deliberately unrealistic. 'Self-consistent' might be a better word than 'realistic' in this case.

"Any truly adequate definition of science fiction should distinguish it from stories that deal with the familiar present or the accepted historical past on the one hand, and from fantasy on the other. It may be that there is no way to do this that applies to all cases. Science fiction

does not exist in a limbo—it is part of a continuum and shares the problem of definition with other continuum categories. How would one define the category ‘pop music,’ for instance? Most people have a pretty fair notion of what it is, but any reasonably tight definition would eliminate songs or performers that most people would include, and a loose definition would blur the distinction between pop music and folk music, country music, or jazz, not to mention art songs or classical music.”

Do you catch the flavor of whistling in the dark? I’m able to see the difficulties in Heinlein’s definition of sf—as it is possible to see the difficulties in almost anyone’s definition of sf—but I still accept the premises of the science fiction paradigm, and so I waffle. Let me continue waffling:

“But science fiction does exist. It is not a thing in itself, like a banana or an Eskimo; it is an approximate categorization, and as long as people seek out a certain kind of story from the fiction continuum, recognizing the category as existing, there is such a thing as science fiction. This search is a twentieth century phenomenon, applicable to present fiction and retrospectively applicable to writers like Verne and Wells, but hardly applicable to older writers. Plato and Lucian of Samosata are irrelevant to *science fiction*, the twentieth century literary category.

“The easiest thing might be to say that science fiction is that sort of story published and packaged as science fiction. This would have a reasonable historical accuracy and would fit the field about as accurately as almost any other. It would of course, mean ignoring books like *On the Beach* and *Seven Days in May* which are clearly science fiction but which were not published as such, but this would be small loss since most such books are not particularly interesting as science fiction. The lack in this pragmatic definition is not in its

accuracy, but in its usefulness for the person unfamiliar with science fiction.

“Generally speaking, I would say that science fiction differs from ordinary contemporary and historical fiction in its speculative element. It injects an alien element into the present or past, or deals speculatively with the future. Science fiction differs from fantasy, which is also speculative in the broad sense, in that science fiction attempts to square its speculations with what we know of the world, while fantasy does not.

“But even this broad a categorization is only an approximation. In most cases it is easy to tell science fiction from conventional fiction. Even in a book like *Arrowsmith*, where there is a speculative element, the control of an unknown disease, the speculation is not essential to the book. Except for the historical credit involved, the disease might as easily be a known one. In science fiction, however, the speculative element is essential.

“It is much harder at times to know where science fiction ends and fantasy begins. A writer may not always know what is possible in this world, or may not care, and yet his intention may still be to write science fiction, and his stories will have to be accepted as such. If the factual matters in question are important to the story, the result may be bad science fiction and a seriously flawed story. Nonetheless, the *attempt* to square things with what we know of the world, even though perfunctory, even though unsuccessful, is enough to make the story science fiction.

“The point of science and philosophy has been to systematize our knowledge of the world. To a great extent, science fiction is an adjunct to this systematization. Taking into account what we know of the world (fact) and what we suspect to be true of the world (theory), science fiction speculates on the possible. Systematic speculation can be done in terms of math-

ematical papers or essays; sf does systematic speculation dramatically, in terms of fiction."

The best that can be said for all this is that while it is wrong, it is not wholly mistaken. The intuition that sf is one thing and science fiction another is lurking here somewhere awaiting discovery. But as it stands, what I have to say is inadequate. As an example, the paradigm may say that the point of science fiction is speculation on the possible. The Heinlein definition that I began by quoting does say exactly that. But the facts of sf are not in agreement. Speculation on the possible has nothing to do with Bradbury's Mars, or Burroughs', or Brackett's, or Lewis's, or Zelazny's.

Nor should it. There are three possible goals for a fictional narrative—the expression of truth (*mimesis*), the expression of idea (*didaxis*), and the expression of the esthetic (*romance*). In practice, fiction is most usually a mixed form, pursuing these goals in combination, but Dreiser's *An American Tragedy* is a relatively pure example of *mimesis*, More's *Utopia* is didactic, and *The Worm Ouroboros* is romantic. The goals of sf narrative can be didactic or romantic or some combination of the two. They cannot be mimetic—the worlds of sf are imaginary. The futures we are presented lie beyond the range of knowledge, lie beyond any question of truth. Bits and pieces of truth can be present in sf as detailwork to lend an aura of verisimilitude, but there is no reason to let the possible stand in the way of a good idea or a good story. Possibility is irrelevant to sf—as an examination of *Adventures in Time and Space* or *Science Fiction Hall of Fame* or any other good anthology of sf will show.

Since finishing my book in 1967, I had become all the more aware of these problems of defining sf fruitfully, not just as a critic, but also as a writer of fiction. My

Villiers stories are experiments with the limits of what science fiction will allow. So when I began this series in *FANTASTIC*, I had the intention of writing two or three columns dealing with the problems of defining science fiction before I turned to serving up pieces of *Science Fiction: A Critical Introduction*. Instead, I think now that you are unlikely to see anything at all of that book previous to the eventual publication of a much larger and more complete book to be called *The World Beyond the Hill: Science Fiction and Speculative Fantasy*. This is my eighth new column and I presently have notes for seven more. One column has forced the next, and now I see no choice. If I want to keep sf, and I do, I must give up science fiction.

What is science fiction? I think it is some measure of the problems of the paradigm that we have no single universally accepted definition. It is a sign that the fit of science fiction to sf is not a comfortable one.

In beginning, I said that a paradigm should suggest the nature of a genre and its relationships to earlier and other work, define its limits and purposes, and suggest a standard for judgment. Of these, the most important is definition, the suggestion of nature. If a paradigm fails on this count, it must necessarily fail on the others.

Let us be fair to science fiction. Since there is no common definition, let me quote three in case one proves adequate where another does not.

Reginald Bretnor (paraphrased by Heinlein): "Science fiction [is] that sort of fiction in which the author shows awareness of the nature and importance of the human activity known as the scientific method, shows equal awareness of the great body of human knowledge already collected through that activity, and takes into account in his stories the effects and possible future effects on

human beings of scientific method and scientific fact."

Quite simply—is this sf?

All this definition asks is that an author take science and its effects on people into account in his stories. That hardly reaches to the essence of sf. It describes *Arrow-smith* better than *The Demolished Man*. What of stories that take place in alternative worlds? What of stories that hinge on impossibilities like time machines? Would *The Skylark of Space* qualify? Would *Hawk Carse*? Would *The Martian Chronicles*?

Kingsley Amis: "Science fiction is that class of prose narrative treating of a situation that could not arise in the world we know, but which is hypothesized on the basis of some innovation in science or technology, or pseudo-science or pseudo-technology, whether human or extra-terrestrial in origin."

I do believe that it is a common characteristic of all sf that it assumes some difference from the world that we are familiar with. It is Amis's suggestion that an sf story should treat a situation that *could not arise in the world we know*. This is clearly wrong. There are sf stories in plenty that treat of situations that could arise but simply have not, stories of gigantic catastrophe, for instance, or after-the-bomb stories. Nuclear war requires no innovation.

Amis is wrong again in suggesting that his strange situations must necessarily arise out of technology and science. To save himself from time machines, he adds "or pseudo-science or pseudo-technology," a hedge so fuzzy as to be meaningless. Do psi stories qualify? What about stories like "Nightfall," "Coming Attraction," "Born of Man and Woman" and *A Mirror for Observers* that feature difference without innovation?

Sam Moskowitz: "Science fiction is a branch of fantasy identifiable by the fact

that it eases the 'willing suspension of disbelief' on the part of its readers by utilizing an atmosphere of scientific credibility for its imaginative speculations in physical science, space, time, social science, and philosophy."

This, I think, is the best of these definitions, and still it doesn't adequately suggest the nature of sf. What of stories like *The Sirens of Titan* that simply have no scientific credibility at all? Or my novel *Rite of Passage*, which invokes no scientific atmosphere of any kind, credible or otherwise?

The trouble with all three of these definitions is their invocation of science. Science can be present in sf as detail to lend an aura of verisimilitude, but it is no central and necessary factor, even as atmosphere.

We need a new paradigm.

Sf is a growing literature that is now fumbling for a wider audience than it has previously enjoyed. It is becoming pertinent, popular and academically respectable. Signs of growth are apparent in the sudden burgeoning of the science fiction convention, in the popularity of *Star Trek* and *2001*, of *Dune* and *Stranger* and *Cat's Cradle*, and in the recent foundation of the Science Fiction Research Association. The sf vocabulary is no longer strange to the public, but common coin. Sf is a heavy influence in rock music. Sf writers receive regular requests for their manuscripts from one university and another, and inquiries from *Who's Who*.

There is a double feeling of imminence in the air. There is the impression of an audience waiting to be discovered by sf, people hungry for wonder, but not necessarily for "an atmosphere of scientific credibility." *Stranger in a Strange Land* is meaningful, but hardly credible. The needs that have produced the various human liberation movements, the ecology

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XVI

They had laid their dead near the hull portal, in the room where first these met. Yvonne, clinging to Skip's arm, said through tears, "We can't just launch them."

"Nor turn Ahasuerus over for dissection," he agreed. "They rate a service, yes."

"Can we give them any? I mean . . . do you know how . . . in any faith, any tradition? I don't. A few bits and pieces of Kaddish, of the Christian ceremony, vaguely remembered from funerals—and when neither we nor they believed—what have we to offer except pompous made-up sentences?" She stared before her. "Nothing. It's emptier in us than out yonder."

"I think they'd have liked the Wayfaring," he said.

"What?" She cast a blurry, bewildered look upon him.

"How my folk bury a friend. Nobody knows who wrote the words, but most of us have learned them. 'Wayfarer, farewell. For the gift of your love we thank you; and your gift shall be cherished within us on every road we may wander, and live between us in every camp where we meet, and be given again when we likewise enter your quietness. Until then we shall rejoice at sky, wind, water, and wide lands, in your name and memory—'" Skip let his voice trail off. "It goes on a short while longer," he said shyly, "and we've got a particular way of setting down wildflowers or what else can be had, and other such customs. Do you think that'd be right?"

"Oh, yes, oh, yes," she said, and he could hear how her misery was lifting. "We can take them to us, make them

belong— In the Byworld is our hope."

They stood on the observation bridge and watched man's mother grow near. She shone cool blue amidst night and stars. Clouds swirled white where rain went walking. An ocean bore one incandescent point of sunlight. Offside lay her moon, scarred and lifeless as if long ago it had felt the wrath of bombs; but men were there now, and in a few of their shelters grew roses.

"Ahasuerus loved Earth," Skip said.

"Wang Li did too," Yvonne answered.

He nodded. "We'll see if we can keep it for them." And then: "No. I shouldn't've spoken like that. The world's had over-many saviors and guardians."

Because of whom, his thought said, two that we traveled with are on a straight-line orbit into the sun.

But grief had faded, as it must and should, in those days he and Yvonne had added to their journey, laying their plans and making certain they could handle the ship.

The room was still. They had turned off the murmurous background, which was too reminding. Gradually they would learn how to make the ship sing of Earth. The atmosphere remained thick, warm, wet, and odorous, for they did not want to risk destroying their gardens. But they meant to move these into special places, and create through most of the hull an air better suited to them and to blossoms more familiar.

"Are you sure we'll be able to control events that well?" she had asked when first they talked about the future.

"No," he said. "In fact, I doubt it. However, I am sure we've seen an end to grabbing and tearing after this power

that ought to be only for—for—”

“For enlarging the spirit.”

“Okay.” He ran fingers through his hair while pacing before her. “It’s ours. Yours and mine. We’ll never give it to the Ortho. Anybody’s Ortho. They had their chance and proved they aren’t fit. Now let them whistle. We can’t be touched. If necessary, we’ll head outward. I know about a planet or two we could homestead. But I reckon we’d rather stay. And I’m fairly confident we can strike a bargain. Even one that’ll let us visit Earth, immune from reprisals. Don’t forget, we’re uncatchable also in a tender. And we do have a lot to dicker with, like being able to ferry scientists. Of course, we’d better keep our people always in the majority aboard.”

“Who are they?”

“Byworlders. Those I know personally, the right kind, gentle adventurers who’ve got no interest in running anybody else’s life.” He halted, squeezed her shoulder, and smiled down at her where she sat. “Maybe you’ll pick a few Orthians like yourself. Fine. The point is, after they sign on with us, they’re of the Byworld too.”

The talk had been in their cabin, so his sweeping gesture had been at walls. But he meant the cosmos beyond.

The vision glowed from her. “And we’ll keep the peace,” she said.

“No!” he replied. “Don’t you see, darling, that’s been the whole trouble? That people have power over other people, or want it, or are afraid others want it? Ahasuerus didn’t come here to put a new yoke on human necks.”

“I’ll have to learn your way of thinking,” she said humbly. “To me it seems impossible that someone, someday, after we are gone, won’t use the strength he’ll

have—for the highest purposes, with the best of intentions—”

His ardor waned. “A chance we can’t escape taking. I’d sort of hoped that by then the race ’ud be spread far enough that nobody could rule it. But the more I think about duplicating this ship inside a thousand years, the crazier the idea looks.”

Her turn came. She sprang to her feet and embraced him. “No, of course, dearest! I was being stupid. I ought to have realized immediately, considering how many technologists I’ve met—Listen, there’re no secrets in nature. The question is simply whether or not a job can be done. If they know it can, that’s clue enough. They’ll find a way. And don’t you think they’ll put everything they have into it on Earth—when we are aloft to lure them? We can let trustworthy scientists make studies too. Skip, you like to bet. Will you bet me we won’t live to see the first human starcraft—crude, maybe, but starcraft—depart for Sigma Draconis?”

He had gusted out a small, shaky laugh. “No, the odds look too long against me.” At ease once more: “Unless the stakes are something I won’t mind paying?”

—Now she spoke aloud, as if already her kindred could hear: “You’ll get your chance. You’ll go your thousandfold ways, finding a hundred that are new and good, because we have the wisdom to see that nobody has the wisdom to tell the whole world what it must do.”

“Aw, don’t preach at them,” Skip said. “Me, I lay no claim to a noble soul. I only figure to spend the rest of my life among the planets and maybe the stars, having an absolute ball.”

Yvonne flushed. “That was sententious, wasn’t it? I still haven’t properly

learned to be just myself. Will you keep showing me?"

He hugged her, between Earth and the Magellanic Clouds. "You know," he said, "that problem of ours, how we could stay together, we haven't found a solution and we never will. We'll

never need to."

A while later he said, "I'd better stroll aft and conn us into orbit. Remember, in spite of criticism, I'm holding you to your promise that you'll compose our message to the people."

—Poul Anderson

(Continued from 111)

movement, the libertarian Right, and the counterculture are in some part answerable by sf. And at the same time, there is the feeling that great and so far undiscovered possibility is inherent in the vocabulary that sf has spent the last forty-five years in building. As I've cited before, Joanna Russ has characterized sf as the Elizabethan theater after Marlowe and before Shakespeare. I believe that it is earlier than that, but that, if anything, she underestimates the potential powers of sf. We may have reason to be modest about some aspects of our past, but we are fortune's children. The day will come when the writers of our day will be thought lucky to have lived at this moment with this moment's opportunities.

But the audience will remain unfound and unsatisfied, and the potential untapped, as long as the old paradigm of science fiction remains our standard. We recognize that the standard is inappropriate—at least, some of us do, some of the time—but until we find a better paradigm to replace it, sf will be a frustrated literature.

On the other hand, when it is accepted, the new paradigm will produce both better writing and better stories from the writers who are able to accept the transformation. I don't think the classic writers of science fiction, the writers of the forties, the Asimovs, de Camps, Heinleins, Sturgeons and van Vogts, will be among those making the transition. Already, many or most of them have responded to the question and disorder of the last ten years by turning

to other forms or falling silent, as Aristophanes, the master of Old Comedy, fell silent in the face of a new comedic conception. Their day ended with the thin years of sf that came at the close of the fifties when the creative potential inherent in the old paradigm became exhausted. The newer masters, the writers of the fifties, the Andersons, Blishes, Dicks, Herberts and Vances, will make the transition in proportion to their commitment to the old manner of thought. That is, I expect it will be easier for Dick, who may not even notice the change, than for Anderson, who obviously will. Though these writers are in their forties, I think many of them will not be with us in five or ten years. As for the newest writers, Delany, Disch, Laferty, LeGuin, Russ and Zelazny, it is their work that has provided the range of exception to the old paradigm that has finally demonstrated the need for a replacement. It is they and their successors who will investigate the true possibilities of speculative fantasy. Among them we may not be lucky enough to find a Shakespeare, but I believe we will surely produce a clutch of Marlowes or better, writers who will be read not just this year and next, but for centuries.

The paradigm I propose to replace science fiction is *speculative fantasy*. It is defined in this way: Speculative fantasy is a fictional form that uses removed worlds, characterized by distance and difference, as the setting for romantic and didactic narrative. I will discuss this paradigm in my next column.

—Alexei Panshin



FANTASY BOOKS

—reviewed by Ted White—

Gil Kane: **BLACKMARK**. Bantam Books #S5871, 1971. 128 unnumbered pages, 75¢.

Blackmark is the first of a projected series of books for Bantam Books by Gil Kane. Kane is a long-time comics artist (perhaps best known for his *Green Lantern* comics of the last decade) who decided several years ago that the 10¢ (or 15¢, now) comic book was a self-limiting medium. It was his conviction—and one shared by many comics artists—that the comic-art tradition was capable of a great deal more depth and variety than was commonly possible in newspaper strips and comic books. These were, after all, men of considerable talent and ability, often as writers as well as artists, and many must have felt the urge to stretch out and do something “adult”—in the sense of non-juvenile—and more lasting. The problem has been the available choice in mediums. The standard-sized “comic book” is so firmly welded in the minds of the popula-

tion as “kid stuff” that any attempt to produce more mature works for more mature people is foredoomed by both attitude and literal censorship. (If your attitude is that comics are kid stuff, then it follows that they should be tailored for the “innocent” minds of kids, and that comics which deviate—as did the “EC” comics of the early fifties—must be stopped. Towards this end a “Comics Code Authority” was set up almost twenty years ago. It imposes strict guidelines which effectively sweep under the rug any traces of reality which might intrude into the realm of comics. In recent years these have softened a little—the Authority exists for the industry and it is faltering financially—but a recent *Spider Man* comic in which hard drugs were mentioned was opposed by the Code Authority and finally published in spite of that without the Code Seal on its cover. It’s almost anti-climactic to mention that the drug problem was only lightly—passingly—mentioned in the story, and was treated as a ghetto problem.)

There are other comics media, but these have not been notable for upgrading the

potential or image of comic art with adults. One is the larger, black and white magazine format, invented by *Mad* when its publisher—EC—left the 10¢ comics field. It isn't well remembered now, but *Mad* had several 25¢ black and white companions. These were EC's "Picto-Fiction" titles; *Shock Illustrated*, *Terror Illustrated*, *Crime Illustrated* and *Romance Illustrated*. In these the story was told in typeset text arranged as paragraph-long captions (complete with dialogue) over the illustrations, rather like the "Prince Valiant" Sunday comics page. They were dull and wordy and the art too static. The value in the panel-form of illustrative art lies in its sense of movement, panel to panel, which creates its pacing and story-telling momentum. The closest parallel is the film, and the great practitioners of comic art, like Will Eisner, Bernie Krugstein and Harvey Kurtzman are very cinematic in their styles and-effects. Often a page will require no words in explanation at all—rivalling the best in silent movies. In EC's "Picto-Fiction," the panels never portrayed a close-focus, moment-to-moment flow: they illustrated paragraphs of text, each isolated from the one before it by many lines of description and explanation. As EC's editor, Al Feldstein, said later, "They were too wordy for the picture people, and had too many pictures for the word people. They didn't satisfy anyone."

In the sixties, in an attempt to make an end run around the Comics Code Authority, several publishers began publishing horror comics in this larger, black and white format. Clinging to the traditions they knew and understood, they made no effort to change the style of presentation—they're straight comic book, minus color—and the best of these titles was only an echo of the original EC horror comics of pre-Code days.

An attempt has also been made to explore the digest-sized magazine—but only

by the publishers of comics most devoted to the "kiddy" image: Gold Key (Disney, et al) and Fawcett (Dennis the Menace.) These are reprint comics with shrunk versions of standard comic book pages—not so very good for youthful eyes.

Where to go, then? The paperback book offers one other viable format, especially now that offset printing is becoming more common for paperback use. Paperback publishers have tried the comics before, but largely for only two purposes: reprints of ordinary comic books (of which Lancer's Marvel comics and Ballantine's EC comics were the only standouts), and novels written around comics characters (I will immodestly state that my *Captain America* book for Bantam was the only one which met even minimal pulp writing standards). A few hardy souls tried producing original material for paperbacks—solely in the fantasy-horror field, largely in conventional comics form, and of mixed quality.

(What about the "underground comix," you may ask at this point. Immaterial, I reply. They are largely amateur, and of relatively low circulation, selling primarily to a limited audience. We're talking about mass markets—media capable of reaching a minimum of 100,000 people. Okay?)

This brings us, finally, back to Gil Kane. Kane has thought long and hard upon the history of comic art's attempts to escape the confines of juvenility, and as long ago as 1966 he believed he had the answer: a unique approach combining "all the elements of painting and film, drama and novels." He lacked only a willing publisher.

In the late sixties he set up his own publishing firm and produced one issue of *His Name is SAVAGE*, a black and white magazine in the *Mad* size. He enlisted the aid, progressively, of Lee Hoffman, myself and Lin Carter, and ended up doing most of the writing himself. Both writing and art were savage, and the magazine drew

heavy criticism for its almost bloodthirsty violence. Then the publishing company collapsed, and with it Kane's plans for subsequent issues and other titles.

Blackmark is a definite extension of *His Name is SAVAGE* in style and approach, the differences necessitated largely by the different proportions and size of the paperback format. The text is still in blocks of hand-justified IBM typing (albeit the most attractive I've ever seen) the art is still very definitely Kane—with all his faults and virtues—and I still don't think he has a winner.

I base this conclusion on two very different sets of criteria. The first is that I have seen the book solely in one store outside New York City out of a great many I've visited. This suggests a very tentative distribution, a problem which faces paperback publishers increasingly these days as books crowd yet more books on the racks.

The second is that I don't believe Kane has succeeded in his artistic aims.

The story of *Blackmark* is one long cliché—and reminds me very strongly in fact of Dave Van Arnam's *Star Gladiator*, itself no less a cliché—in which are combined these predictable elements:

a) Earth has endured a holocaust which has reduced it to barbaric days—and science is feared and hated.

b) There is an off-stage menace known as "Psi-Keep," about which almost everything can be guessed from its name.

c) The hero's parents are killed while he's very young, he swears vengeance, is caught by slavers, escapes slavery when he's older, becomes an outlaw, graduates to the gladiatorial arena, and overthrows the King to rule in his place.

d) Into this porridge is stirred an old King who still believes in science—ah, Science—and with his "machine" passes all his knowledge into the hero's mother's body in the apparent act of impregnating her with the hero just before he dies, so

that the hero will be born with this nifty "superpower."

The hero's name is Blackmark.

Everyone in this book is a grand stereotype, from the hero to the various warriors and kings, to the ruling king's nympho wife. This might be acceptable if Kane had brought to any of them a living personality. Alas, he does not. Each postures, each strikes attitudes, and each pursues his caricatured course. This is not the stuff of "adult" books, of the modern-day novel. It's not even good pulp adventure. It's exactly what the comic books have been doing for the past several years—especially the Marvel comics—with just a little more sex and a lot more gore and violence. It is, sadly, exactly what most adults deplore most in comics.

Worse, despite his own excellent sense of pacing and panel-by-panel momentum (as revealed in his comic book work), Kane's art is a hindrance to the storytelling here. There is no continuity to the art (usually two, sometimes three panels to a page), since nearly every panel is as heavily freighted with text as were those of "Picto-Fiction" days. Indeed, Kane's writing shares the worst fault of "Picto-Fiction": he doesn't know what to show and what to tell, and too often his text is unnecessary and actually momentum-robbing in effect, while his illustrations are isolated from one another.

The total effect is that impossibility in good comic-art: a hard to read, hard-to-follow story. Despite its very predictability, its exploitation of so many sword & sorcery clichés, *Blackmark* has dense, over-wordy, hard to penetrate text and illustrations which lack story-telling movement. (I might add that although I admire Kane's style, I found his art here over-obsessed with the muscular male body and too hasty elsewhere. Many of his perspectives were disturbingly off—

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...ACCORDING TO YOU

Letters intended for publication should be typed, double-spaced, on one side of each sheet of paper, and addressed to: Accord- ing To You, P. O. Box 409, Falls Church, Va., 22046.

Dear Mr. White,

With regard to your editorial of October, 1970, I can't imagine magazines that are not selling very well, doing good in the Black Market. If people are that interested in your magazines (to endanger their liberty by obtaining them illegally) perhaps they will pay more for your excellent covers. After all 60¢ six times a year (or 12 including AMAZING) is a small price to pay. I would wager that not more than 1000 issues are bought in this manner and that these sales do not take away from newstand or bookstore sales. I can understand your being upset by these issues not being distributed, but whether they then go on sale illegally seems to make little difference, since, as I stated before, these stolen issues do not (I Believe) detract from legitimate sales—in fact, I feel they bring you new fans by interesting them in the magazine enough so that they will

want to purchase a complete copy of each and every issue.

In case you still remain worried about Black Market sales, I suggest that you ask your wholesalers to return a corner of the entire magazine (one with a staple). This would amount to about 1/12 of the entire magazine and therefore be relatively inexpensive to the wholesalers (as compared to the whole magazine).

Jeff Summers

10200 Amestoy Avenue
Northridge, CA 91324

It just doesn't work that way, Jeff. To begin with, many of those black-marketed copies are copies which would otherwise be put on sale. Robert Madle tells me that places exist, particularly in the Philadelphia area, where the coverless copies are on sale before the newsstand copies of the same issue! While I have no idea how many coverless copies of this magazine are being sold, I can tell you that the number placed on sale definitely exceeds one thousand—and could easily be over ten thousand! Nobody who wanders into a store and buys a coverless copy of this magazine is actually endangering his lib-

erty, of course, and it would appear the store owners aren't in much danger either (quite often they also deal in a large variety of sleazy items—black market magazines are usually a minor sideline—and it's a reasonable guess that many of them have made "deals" in order to remain in business anyway). You may be right that a few such sales will encourage the purchasers to buy legitimate copies of subsequent issues, but I wonder . . . As for returning "a corner of the entire magazine," have you ever tried tearing off a corner of this magazine? Can you imagine the time and trouble necessary? The equipment that would be required? The difficulty in handling and tabulating such "returns?" I'm afraid our national distributor would laugh the idea right out of his office—and I can't say I'd blame him.

There is only one effective answer to the problems we—and all smaller magazines—face at the hands of our distributors, and that is federal regulation. Magazine distribution is an interstate business, a medium of communications as nationally important as television or radio, and, on a regional basis, it is an effective monopoly throughout most of the country. Recently the FTC has moved against several regional distributors for "restraint of trade"—in cases involving the New York Times and Daily News. And along with federal regulation—effective regulation, that is—we need a modern, up-to-date form of distribution in which computers are used for something more than customer-billing. Until this happens, not only will the smaller magazines remain at the mercy of every scoundrel in the business, but rip-offs like the black market in coverless magazines will continue. The publishing business as a whole has been badly hurt this past year by the recession; distribution abuses may yet kill many of us off.—TW

Dear Mr. White,

No matter what the quality of a story inside a science fiction or fantasy magazine, most people will pass it by if the cover or the interior artwork (if they do pick it up) do not catch their attention. Thus, in most cases, they will not buy. This last summer a friend of mine gave me some 1969 AMAZING STORIES and FANTASTIC STORIES. My immediate reaction was "yecchh." Even though I had not seen an issue of either of these magazines in several years, I was disappointed with such artwork. I liked the format of using NEW stories in each issue; but the cover art (at least of the ones I was given) was very confusing, if not terrible. (AMAZING did have better covers than FANTASTIC, but neither was very good.)

While browsing in the local store in December of this last year, I couldn't believe my eyes. The magazine was named FANTASTIC STORIES, but the artwork was of such definitely superior quality that I had to pick it up and look through. I bought it. Michael Kaluta—known to me through my avid reading of comic books besides my reading of straight science fiction—had made a cover that was the best I had seen lately on any magazine. Jeff Jones' and Kaluta's interior art beautifully complemented the total artistic effect. I still was uncertain whether it was a freak accident in printing. (Speaking of printing, I have not yet made up my mind about the small (very small) type—but I think I'll get used to it.)

Either the store did not receive the February FANTASTIC, or I missed it—so the next one I saw was this week: the April issue. Gray Morrow's art, the placing of the letter-head (set off in the black box, with the titles in the vertical white bar at the left) were excellently done. I considered it (and the December 1970 issue) to be the best I had ever seen on FANTASTIC. In fact, those two covers were second

of any recent magazine covers only to *Analog's* February issue. (February *Fantasy and Science Fiction* ran a close third among the covers I was able to compare at that time.)

If you continue your policy of provocative, eye-catching covers—along with good stories—I cannot see how you cannot gain new readers. The new FANTASTIC covers prompted me to go to a magazine store to find the latest issues of AMAZING STORIES to see how much they might have changed. Jeff Jones on the January cover brought it right to my attention. No lines running across the black background, the selection of blue lettering for the titles and authors (again, up until now *Analog* has been the single magazine to really use colors effectively with the artwork. The Jan.-Feb. issue of *If* was totally mediocre and uninspiring. Better placement of the logo and story title could have made a difference. *Galaxy*, also, was uninspiring. For me, the art of the cover makes half the magazine).

The March issue of AMAZING? It and the January issue rank with the two FANTASTIC covers already mentioned. (In other words, these four covers rank second among recent covers of all magazines I have seen.) I don't know who John Pederson, Jr. is, but don't let him get away. He's absolutely *fantastic*, if you'll pardon the term. I can't help thinking that you are going to continue your policy of good (perhaps even great) cover art. I sincerely hope this is true. If you keep it up, you might very soon find yourself editor of two of the best (if not *the* best) magazines on the market.

One last point. The change in the AMAZING logo was perfect. It is a straight-forward, modern design, simple and easy to identify (as the former style sometimes was not). In the last two years AMAZING and FANTASTIC have grown tremendously in their over-all concepts and presentation.

In fact, they have been the most unbelievable and extensive changes I have ever seen in my nine-year reading experience of science fiction/fantasy. I truly believe FANTASTIC and AMAZING are going to the top. Please continue your policy of giving quality not only inside, but also on the outside.

Glenn Kraski
1539 East Howard St.
Pasadena, Ca. 91104

Dear Mr. White,

As most of your correspondence probably does these days, this will begin with high praise for what you've done to AMAZING and FANTASTIC, which I previously bought once a year or so but now purchase automatically without looking at the contents page. As the type of reader who doesn't get around to the fiction until he's read all of the articles and editorial matter, I'm delighted with the quantity and quality of the latter. (How about book reviews in every issue, though?) The fiction is consistently good, and the quality of the editing is apparent when one compares it with what passes for editing nowadays in a couple of once-great magazines in the field.

(Any opening like that has to be followed by a "however.") However: Half a story is not half as good as a story. I refer to two specific instances, the first of which was "The Crimson Witch." This story was billed as "complete in this issue," but reading it was rather like coming into a movie half an hour late and trying to figure out the situation with the aid of a few summary sentences begrudgingly whispered by the person in the next seat. A complex plot was in full swing, and characters and events were referred to as though they should be familiar. (A letter from author Dean R. Koontz in *Science Fiction Review* confirmed that cuts had been made.) Then, in the latest issue, there

was your own "Wolf Quest," with its lady-or-the-tiger ending, and several major plot mysteries (the origin of the wolf, the disappearance of the raiders) left unexplained. Since the complete versions of both novels are forthcoming, these don't pose the eternal frustration of "Kublai Khan" or *The Mystery of Edwin Drood*, but they are annoying.

Doug Hoylman

165 Hopkins Ave., Apt. 5

Jersey City, NJ 07306

The cuts made in "The Crimson Witch" in no way changed or created that "middle of the movie" feeling you refer to—they were deletions of several flashback scenes to the mundane reality of Earth, and all of the material contained in them was restated later in the body of the story in a much better fashion. The fact of the matter is that Dean left out what might have been the best part of the story: everything which occurred to Jake from the point at which he found himself in the land of the Crimson Witch, up through his initial encounter with her. For this I cannot accept the blame. As for my own novella, it is self-contained, but, as I stated explicitly, not the complete novel. The origin of the wolf is explained in the book; the disappearance of the raiders is not—I had thought that was obvious. They simply left Makstarn for dead and moved on, having raped him and discarded him with typical contempt. (Such occurrences were common as recently as fifty years ago in parts of the Arab world, and there are behavioral analogies between the inhabitants of our planet and those of Qanar . . .)—TW

Dear Mr. White,

Todd Compton states that to him the most exciting writing in SF these days are the works of Lafferty, Russ, Delany, Pan-shin and Zelazny. My reply is that to me the most exciting writing in FANTASY

these days is represented by Lin Carter, Gardner Fox, L. Sprague de Camp, Michael Moorcock and John Norman. An examination of FANTASTIC over the last year shows, I believe, that these authors have appeared no more often than those favored by Mr. Compton. He considered "The Crimson Witch" to be worthless pulp. I considered it to be the second best story (after "Hasan") that the magazine has published in the roughly year-and-a-half I have been reading it. Obviously it would be a challenge to publish an SF-Fantasy magazine that both of us, not to mention the many other readers who have their own favorite type of literature, will enjoy.

I first became acquainted with FANTASTIC when I was a typical less-than-happy draftee in Long Binh, Vietnam, who was tired of running to a shelter in the middle of the night to avoid incoming rockets. I picked up the issue of the magazine which had the first half of "Hasan" at the PX one weekend. I read that story at least 3 times during my spare time and then subscribed to the magazine to insure receiving the second half, as the PX receipt of magazines was rather haphazard at times. I consider heroic fantasy escapist literature which allows someone to temporarily put aside the problems and troubles of the real world and instead dwell in a land of barbarian heroes, damsels in distress and wicked wizards. Possibly that could be called childish, but I suspect it serves as a safety valve which aids people in not being overwhelmed by their own problems.

My point is that if FANTASTIC carried only the type of stories I enjoy reading Mr. Compton would not buy it, and likewise if it carried only the type of stories written by the authors he mentions I would not buy it. Some compromise is necessary if FANTASTIC will continue to receive money from both of us. For my

part it seems better to have it the way it is with stories I like appearing occasionally than for it not to be published at all.

Science Fiction is published by *Galaxy*, *If* and other magazines, but there is no other good magazine outlet for Fantasy other than FANTASTIC. To banish all melodrama from your magazine as Compton suggests could mean the failure of a young H. P. Lovecraft or Robert Bloch to break into publishing as well as a new Robert Howard. Half a loaf is better than no bread at all, which would be the probable result if FANTASTIC were strictly limited to publishing stories interesting to only one segment of SF-Fantasy fandom.

I have one question concerning the April issue. I bought the Ace book edition of Brunner's *Traveler in Black* which includes "Dread Empire" as well as the other stories. Of course other stories you published have come out as paperbacks before, but this is the first time I know of where the book version has appeared before the magazine. Was this just an accident of publishing or what?

In conclusion, one possible way you might satisfy the widely differing literary interests of Mr. Compton and myself is to publish a story of Roger Zelazny (one of the authors he-likes) about Dilvish the Damned (one of the characters who I like).

Douglas W. Justice
2154 Ridge Rd. East
Rochester, N.Y., 14622

I believe a new Zelazny story in these pages would make all of us quite happy. At the moment, however, none is in sight. As for your question about "Dread Empire," yes, it was an accident of publishing—and about as annoying as most such accidents are. We bought the story first, had to hold it for a suitable hole in our schedule, and were later informed that it would be published by Ace at a date somewhat later than was actually the case. Armed with this unfortunately er-

ronious information, we published the story when we did, only to see the book on the stands first. An unhappy mixup all around—especially since it was our publication of Brunner's "The Wager Lost By Winning" which had brought the series to Ace's attention in the first place.—TW

Dear Ted White,

The cover on the April issue is quite impressive. It isn't that Morrow's painting is outstanding (looking at it closely, I can see that some of the figures in the foreground are sort of ill-colored and subtly crude), even though it is his best you've published to date—but it's how the whole layout fits together so well. A nice, clean design. (Even your old "square" logo goes with it perfectly.) Too many magazines seem to be content with just sticking a painting on their cover—apparently they don't realize what effect an innovative layout can have. Keep it up . . .

While praising your cover layout & artwork, it seems like I have to downgrade your interior material. Must *all* your artwork be in exactly the same, rectangular boxes? I don't expect anything spectacular, like *Galaxy* has done, but surely you could have a few full-page illustrations, alternate a bit, so the layout doesn't become monotonous? The interior artwork really isn't as good as some of the stuff you've published before, either. I think the main reason for that is the lack of detail the drawings have . . . Jeff Jones' seem so barren and vacant, for instance, and don't even have any "style" to them. (I liked his map the best, even though it related very little to the story!) Actually, the best illustration in the magazine was for the reprint, even though that was a little old-fashioned. (But comparing young artists' work to that of a master's, like Virgil Finlay, is unfair, I know!) Steve Harper's drawing wasn't bad, though, and I look forward to more stuff from him.

Has anyone remarked how similar the ending of "Wolf Quest" is to Harlan Ellison's "A Boy And His Dog?" Of course, the choice the boy has to make in each is somewhat different, and yours is a bit more realistic than Ellison's, but the result sort of made me chuckle. Geo. Alec Effinger's "The Eight-Thirty To Nine Slot" was a great first story (though it had nowhere near the impact of Gordon Eklund's debut in your magazine last April). For not having the time to "dig through the slush pile," you certainly have introduced enough new authors this past year; six, by my count. (And somebody said the future of the sf short story was in the original anthologies—Ha!)

James Blish said a few things about "speculative fiction" in *Speculation* 27 which I think also apply to Alexi Panshin's term "creative fantasy":

... It seems to me that [speculative fiction] is not much of an improvement. Those who promulgate it seem not to have noticed that all fiction is speculative, and that science fiction differs from other types of fiction only in its subject-matter . . . [And] if there is any single subject which dominates this genre, it is science and technology, and Mr. Gernsback's term is still therefore the best we have. Good science fiction must not only contain some science but depend upon it; as Theodore Sturgeon points out, the story ought to be impossible without it."

But both Panshin and Blish fall into another trap—they seem to think that the term "science fiction" has to be taken *literally*. Which is ridiculous. When you put "double blockbuster" on the cover of your magazine, you didn't mean that term literally, but rather *figuratively*—and that's how people regard the term "science fiction." It has evolved. Nobody, Mr. Panshin, absolutely *nobody*, believes in Gernsback's "prophetic" definition of science fiction—so why change the name? "Cre-

ative fantasy" isn't a more logical term.

I also might note that science deals with all the *physical* aspects of the universe. So if Panshin wants to deal with the outside world, he has to "write science." And that's the proper study of science fiction—to show the reactions of human beings to the forces outside (the physical, scientific ones) and the forces inside (the emotional, human ones) that affect him. *Both*, rather than just the emotional ones which the mainstream deals with. Science fiction can also gain significance merely from the ideas it expresses—something which is certainly not true of fantasy, for instance.

I agree with Jerry Lapidus—the borderline between fantasy and science fiction is rather fine. *But that doesn't mean that there isn't any difference between fantasy and science fiction!* There are a dozen shades of color between yellow and green (such as chartreuse, etc.), but does that mean there is no such thing as yellow and green? That they are the same, simply because there is no clear dividing point between them? I don't think anyone would classify John Brunner's *Traveler in Black* stories and his *Stand on Zanzibar* in the same genre, and yet that's what some people are saying, if they believe there is no difference between fantasy and science fiction.

What I think Mike Juergens is actually saying is that it's about time fantasy was treated the *equal* of science fiction. Sure, fantasy material has received awards—but they've been *science fiction* awards, given out at *science fiction* conventions, or by an organization called the *Science Fiction Writers of America*. There's only one regularly published magazine devoted purely to new fantasy material (This one, *FANTASTIC*). I don't believe that it's ever even been *nominated* for an award, let alone won one. But on the other hand, I can't help but agree with Jerry Lapidus

that there is a scarcity of good material for the awards, at times . . . I guess people should be encouraged to vote "No Award" more often, rather than let a mediocre work win. But I just get tired of fantasy being treated as "science fiction's little brother" . . .

By the way, Ted, I ran across something Lester del Rey said that was rather interesting: "Four issues of a fantasy magazine I edited half a generation ago far outsold the science fiction magazines I also edited." Perhaps the day will come when FANTASTIC outsells AMAZING . . . ?

Cy Chauvin
17829 Peters

Roseville, Michigan 48066

Yes, Lester has told me the same thing. The magazine was Fantasy, and the other titles were Science Fiction Adventures, Space Science Fiction and Rocket Stories—all digest-sized magazines of the early fifties. All but Rocket Stories outlasted the fantasy title, and I'm under the impression several of its four issues were edited by Fletcher Pratt. I don't know why that fantasy magazine sold so well—if, indeed it did by anything but comparison with the others (none were well-distributed)—but if it did it stands alone. Weird Tales folded during the same period, after years of losing money. Beyond (Galaxy's ill-fated companion of the same period) never did well, and this magazine was forced by loss of sales to abandon a prestigious package and the presentation of major fantasy writers to become, as it had been earlier as the pulp FANTASTIC ADVENTURES, the little sister of AMAZING STORIES and a haven for space-opera. Presently, FANTASTIC's sales aren't running even close to AMAZING's—more's the pity. I know that both magazines are presently equals in quality, but again I suspect the distribution. I haven't seen an issue of FANTASTIC on sale in the greater Washington area in half a year (four

copies of the latest AMAZING managed to find their way into Falls Church), and reports from other parts of the country are equally bleak. If we aren't even appearing on the newsstands which carried us a few months ago, what can we do?—TW

Memo to Alexei Panshin:

Re: FANTASTIC STORIES, April, 1971, p. 113:

T. O'Connor Sloane was not a son-in-law of Thomas A. Edison. A son of T. O'Connor Sloane married a daughter of Edison. Sloane himself was an inventor, and I think he was one of the very first to receive a doctorate in electrical engineering.

Edison was an industrialist.

Gernsback was a publisher.

Sloane was an educator.

Each one of the three was an inventor. (They either were or were not scientists, depending on how you define the term.) (Edison called himself an "electrician," and Sloane referred to himself as a "scientific expert.")

Claire Beck

P. O. Box 27

Lakeport, Calif., 95453

That wraps it up for this issue, but I have a few last-minute notes about the two columns which appear here. Both, you may notice, are the first halves of two-part pieces. Alexei Panshin's column was written for two-part publication. L. Sprague deCamp's was not. After discussing with him the lengthy nature of this particular column (it runs 11,000 words, complete), we decided that rather than cut it to a shorter length—as he did himself with last issue's article on Robert E. Howard—we would simply divide it in half, publishing it in two consecutive issues. For that reason, the article is not structured as Panshin's is, although I made the break at a natural breaking point. It will resume next

issue directly with the introduction of *Mrs. H. P. Lovecraft*.

Because Fritz Leiber has not been able to resume his *Fantasy Books* department

just yet, I have filled in for him this issue with a short essay-review of my own. Hopefully he will be back with us soon.

—Ted White

(Continued from page 117)

more than once bending a sword to an odd angle from its haft, for instance, and once reversing perspective to make the nearer of two riders smaller and more distant in appearance.)

Blackmark has only four chapters, and is itself only the first volume in a projected series of books of "The New Full-Length Action Adventure in Words and Pictures." It's possible that future books will be better as Kane finds himself more at ease in the medium, but I remain dubious. It seems to me that in a very fundamental way Gil Kane is fooling himself. His goal is not really an adult approach to comic art. Rather, it is the exploitation of what he knows best—comic art—to depict that kind of story which he likes best: the juvenile

action-adventure pulp stories he read as a youth. In other words, he has raised his sights from the industry level eight-year-old approach to that of a twelve-year-old.

Twelve-year-olds, if they are still interested in comics, will find *Blackmark* hard to find (in fact, they're unlikely to discover it unless they make a habit of thumbing paperbacks in the first place) and expensive. Older readers may sample the first few pages, but are likely to decide the book is for the kids. And thus, if poor distribution doesn't nip the whole project in the bud, the old bugaboo that killed "Picto-Fiction" is likely to do the job instead.

And that's sad, because it will mean that the proper job is still waiting to be done, and that much less likely to be ventured by any paperback publisher.

—Ted White

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(Continued from page 5)

this kind of editing should be returned to the author for his approval—but the time schedules on which we, at least, operate simply don't allow this. Nor do they allow the author to proof his own galleys—another accepted courtesy in the more leisurely schedule of the book-publishing world. For the most part, I try to avoid “heavy” copyediting. Not only because it is in most cases a discourtesy to the author, but because it is also time-demanding, and an extra burden on my already overloaded shoulders. I am reminded of a time when, attending a convention, I saw one of my own manuscripts auctioned off. The lucky buyer brought it to me for my autograph, and for the first time I had the opportunity to see how it had been copyedited. I was amazed to discover that the editor in question (who shall go unnamed here; he is no longer editing a science fiction magazine) had substituted a synonym for a word in almost every sentence. In nearly every case, the synonym was neither a better choice nor a worse one, and the sense and style of the story were both unchanged—so much so that I hadn't noticed these many changes when reading it in print. I had to marvel at the time and work involved—and in its so very pointless nature. The editor in question had apparently regarded this sort of thing as a necessary justification for his job. To me it is, “made work,” and without worth or meaning.

I have made changes in some of the stories I've printed here. As Dean Koontz has pointed out in the fan press, I made several deletions in his “The Crimson Witch,” which we published almost a year ago. I deleted sections of the novel which I thought badly detracted from it. This is a decision I will stand by, and which I have explained at some length in the same fan press and won't go into further here. It is not my regular policy, however, to make changes of that magnitude, and

I certainly hope to avoid the necessity for any in the future.

At this point the copyedited and blurred manuscript goes to the typesetter and is out of my hands. When the manuscript is set in type, the galleys—or page-proofs—will go to Assistant Editor Alan Shaw, who, bless him, has an eagle-eye for both typos and the misspellings which slip by me. (I proofread only the features—editorials, columns and letters; Alan does the rest.) This may explain the much lower frequency of typos over the past year.

There is, however, one aspect which is not under either my control or Alan's, and that is the capriciousness of those employees of the typesetter who are supposed to make the actual corrections. (Now that we have changed typesetters I feel more free to say this. . . .) In a frustrating number of instances, the corrections we so neatly marked up on galleys and/or page-proofs were ignored, or dealt with incorrectly—and this did not become apparent to us until we had printed copies of the magazines in our hands. In one case, the typesetter made all the corrections, yes, *but in the wrong typeface*. Through our several years with our late typesetter this constant running battle was a source of continued annoyance, and after a while it became almost a game in anticipating each new area of error. Footnotes, exponential numbers and such special symbols as the plus sign were guaranteed trouble spots and often led to angry phone calls and raised blood pressures all around. (You can imagine my astonished pleasure when I saw the galleys from our new typesetter for the science column—always my worst headache—for the July AMAZING, and I discovered no problems of this nature at all.)

When I assumed the editorship of these magazines, it was our habit to receive first a set of galleys to proof, and then, follow-

ing that, page-proofs against which we could check the corrections on the galleys. Last year several paragraphs of one story were jumbled in transferal from galley to page, and four pages mixed-up, and that led to our proofing directly on the page-proofs. The problem then was that we had no means of checking to be sure our corrections had been dealt with. Once the mechanical for the issue has been shipped to the printer, he makes a special print from his plates, known as a "blue-print" or "brown-line" (depending on its color) and this is theoretically available for last-minute corrections. However, this is normally sent only to the publisher, Mr. Cohen, and he does not have available our corrected proofs for comparison. (Mr. Cohen's offices are in New York City; I now reside in Washington, D.C.—and the typesetter keeps the corrected proofs in yet a third city.) It may be possible to make a change in this procedure; we shall see. In the meantime, I can only apologize for all of us to Sprague deCamp, whose name was misspelled in the contents page last issue—something I didn't see until I had a printed copy in my hands.

When the galleys are pasted up into pages, these page-proofs also go to the publisher, who does the "pagination." At this point, the stories are arranged in order, and the continuations plotted out.

There is a very simple reason for the continuations: often a story will end with only a few lines or a paragraph, or two on its final page. Other magazines make it an editorial policy to "edit" the story to eliminate this overhang—to make the story end at the bottom of the previous page. I regard the latter policy as dishonest—few stories can accommodate this kind of "editing"—and the former is wasteful of space. Space is at a premium in our magazines, and by "continuing" those last few lines to another page which has an equivalent "hole", we can often create enough space—three or four pages—for

another story. And that is why we use continuations.

My remaining duties are two: I assign the artists who illustrate the stories, and I do the cover designs and typography. I've been asked why we have used the single-column vertical format for all our illustrations. It is not my policy—it was in effect before I came to these magazines—but it exists for several very good reasons; most of them having to do with the typesetting. By making use of a standard format for story layouts, we can simplify our dealings with our typesetters. And since, as I've mentioned, there already exists the potential for many sorts of hassles with a typesetter, every process which simplifies or eliminates them must be taken advantage of.

You must remember that our magazines are produced with a very small staff—for simple economic reasons. We do the best we can to produce magazines which compete to best advantage with those produced by larger companies, but we cannot afford to staff our own production department, and that would be essential in doing the kind of varied layouts some of you expect. I do hope that we will be able to introduce more variety in the months to come—if our relationship with our new typesetter proves to be more efficacious—but certain realities must always intrude so long as we are faced with our present economic situation.

As for the covers, most of you have noted with approval the changes I've introduced over the past year. Again, certain matters of policy are set and beyond my control. One of them is the amount of type which appears on our covers. My job is to juggle these necessary elements and to present them as attractively and tastefully as possible. This I have tried to do, and I believe I have been fairly successful. The artists whose paintings we've used have been enthusiastic about my typography and design—which, as much as possible,

I have coordinated with them—but I recognize the fact that I have not been uniformly successful. One reader complained recently that our magazines are the only ones which put authors' names on the spine. This isn't true, of course, and we did not originate the practice. The purpose is to take advantage of those cases in which our magazines are displayed with only the spines showing. (You'll also note that beginning with this issue we have an addition to the spine: a five-digit number at the bottom. You'll be finding these on more and more magazines as time goes on—they are the computerized numbers by which our distributors know us. Paperback books have used these numbers for several years now. I'd like to hope they will help, but I'm too cynical about both computers and distributors to believe they will. . . .)

About a year ago, our printer of that time switched paper on us, and gave us a thinner, better-quality stock. Many of you noticed, and approved. But others among you wondered out loud if our suddenly skinnier appearance meant less pages. Coincidentally—perhaps—sales dropped at the same time. As a result, our publisher made a decision to switch back to a bulkier paper—despite the fact that this meant paying an additional premium! All too soon thereafter, we were forced to reduce pages anyway. Since then, letters have come in complaining about the cheapness or our paper. . . you just can't win! As of this issue, we switch to a new binding process and a heavier cover stock, and although I have no way of being sure as I write this, I believe the paper will also be of better apparent quality. I say "apparent" because the quality of paper is not necessarily determined by its thickness or smoothness, but by a variety of more subtle criteria, such as the way it takes ink, its tensile strength, etc. Nonetheless, I believe that the "package" this issue will be superior to our previous issues, and I'm

Our typeface remains small—but, I think, quite readable. Earlier this year we switched to a larger face for our fiction—9 point Caledonia—while retaining the smaller face (8 point Century Schoolbook) for our features. Our new typesetter uses the same faces, but with the addition of an extra font of special type—the SMALL CAPS. These were previously unavailable to us, and, I think, greatly enhance our typographical appearance.

Finally, I must say this: There are presently only four "major" publishers of science fiction magazines (I am not counting the recent additions on the West Coast, whose magazines, although worthy, seem to get even poorer distribution than the rest of us)—and each publisher has his own unique working conditions and problems. There are no generalizations—editorial or otherwise—which can be applied to us all, and comparisons are often unfair and usually misleading. For a variety of reasons, what works for one publisher may not work for another. So many of you write to ask why we don't do something which *Analog* does—or *Galaxy*, or *F&SF*. Recently I saw a letter in *If* asking why that magazine didn't do something this one does. There are reasons. There are almost always good reasons why each publisher—or editor—does what he does to produce the magazine he does, and those reasons are quite often unique. It does no good to ask us why *AMAZING STORIES* isn't *Analog*; you might as well ask why this magazine isn't *Playboy*. That isn't to say that if you have a good, workable suggestion we might not use it, but you must bear in mind that we are not published by Conde-Nast, nor by Universal Publishing, and that our problems are not necessarily theirs—nor vice-versa.

Each of us copes in his own way, we in ours.

And now you know.

—Ted White



ALL IN COLOR FOR A DIME

Edited by
DICK LUPOFF & DON THOMPSON

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A treasury of the superheroes of the Great Comic Book Era . . . the days when our entire planet would be on the brink of disaster . . . and Clark Kent would step into a phone booth, strip off his suit and tie and emerge as . . . **SUPERMAN!** And all for a dime.

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You're an unseen visitor to the grimy, dingy offices of the comic book publishing companies of the Thirties and Forties. You're witness to the dizzying ups and downs of the curious

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These misty-eyed excursions into nostalgia are coupled with magnificent illustrations of rare comic books — collectors' items costing, in some cases, \$250 an issue. You'll drool over these glorious pictures: 15 of them are in full rich color. Others are in black and white, sprinkled through the book like prizes in a whole truckload of Crackerjacks.

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